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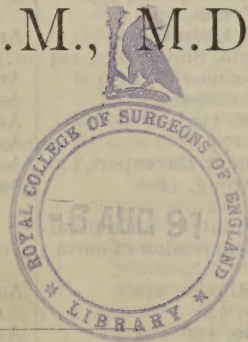
William F. Waugh, A.M., M.D.

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INDEX.

- Abdomen, treatment of penetrating wounds, Lanphear, 502
- Abdominal and pelvic surgery, Wathen, 411
- pain and tenderness, Waugh, 218
- region, injury, Jefferson clinic, 195
- section, after-treatment, Noble, 412
- surgery, McMurtry, 472
- walls, weight of flabby, Marshall, 371
- Ablation of arm without shock or hemorrhage, Agnew, 478
- Abortion, Crowell, 483
- accidental, treatment of, Brown, 414
- at five weeks, Barker, 533
- Abscess of the larynx, Mackenzie, 32
- of the neck, Keen, 261
- Absorbing power of uterus and vagina, Landau, 31
- Absorption of secretion, Laplace, 134
- A case, Yearzain, 354
- Accoucheur, personal disinfection, 455
- Acetanilide, 247
- in the treatment of chancres, Basilevitch, 82
- Acetanilide, therapy of, Aulde, 62
- Acne, Waugh, 27
- rosacea, Stelwagon, 8, 218
- Van Harlingen, 195
- Addresses and essays, Lydston, 541
- Address, valedictory, to the graduating class Medico-Chirurgical College, E. E. Montgomery, 359
- Adenitis, Rex, 217
- Aertzlicher Almanach, Kállay, 177
- A glorious sunset, Cleyenger, 299
- Albuminuria after typhoid fever, Bat-ten, 91
- alcohol in, Guvich, 305
- and dropsy, Waugh, 27
- from antipyrine, Tompkins, 439
- of pregnancy, Tynan, 63
- Alcoholism, cases of, Latimer, 267
- Alopecia circumscripta, Shoemaker, 134
- Alpha-naphthol, Maximovitch, 59
- Alveolar abscess, Clevenger, 454
- Amenorrhœa, Parvin, 119
- anemic, Parvin, 174
- forms and treatment, Davenport, 440
- galvanism in, Strong, 440
- American scientists, 202
- Amputation at hip-joint by abdominal section and compression of aorta, Hardy, 161
- under cocaine, Rhodes, 248
- Anal fissure, Duplay, 526
- reflex, Rossolimo, 421
- Andeer, resorcine in post-mortem wounds, 32
- Anders, J. M., bronchial asthma, 295
- And now, what? 352
- Anemia, Mackenzie, 100
- Jefferson clinic, 174
- treatment, 186
- Anesthesia, Royal Medical and Chirurgical Society, 36
- Wood, 139
- by small and repeated doses of chloroform, Brown, 17
- local, Richardson, 526
- Anesthetic action of nitrogen alone or with oxygen, 223
- formula, local, 15
- local, 465
- Anesthetics, statistics of, 268
- Aneurism, femoral traumatic, Deaver, 371
- tracheal tugging in, Macdonnell, 268
- Angina pectoris, Jefferson clinic, 9
- Powell, 504
- Aniline trichloratum, treatment of malignant growths by, Moorhof, 225
- Anna Dickinson, 198
- Antagonism between bacilli of anthrax and blue pus, Blagovestchensky, 59
- Antifebrine, alarming symptoms, 285
- Antipyretics, doses for children, Demme, 478
- in diseases of infancy, Demme, 288
- the new, Davidson, A. C., 354
- Antipyretic uses of antipyrine and quinine, Rex, 334
- Antipyrine in epilepsy, 374
- Antisepsis and drainage, Marcy, 161
- intestinal, and drug tolerance, Féré, 199
- Antiseptic, new, 439
- solution, Thiersch, 501
- Antiseptics, surgical, Shimwell, 323
- Antisudorific effects of camphoric acid and tellurate of soda, Combemale, 206
- Aorta hysterical, 353
- Aortic stenosis, Jefferson clinic, 195
- Aphonia, Solis-Cohen, 119
- Aphorisms in medical emergencies, Kempf, 312
- Apocodeine, Murrell, 246
- Appendicitis, Chambers, 346
- Rand, 223
- responsibility in, Vanderveer, 247
- Aristol, Langgaard, 199
- Pollak, 505
- Shoemaker, 502
- Squire, 290
- in atrophic rhinitis, Braislin, 503
- new uses, 162
- notes on the use of, Page, 426
- the new antiseptic, Egasse, 275
- Arsenic as a drug, Hutchinson, 544
- in Malaria, Bannerman, 355
- Arterial tension in early phthisis, Marfar, 543
- Arkansas, slow fever of, Mason, 475
- Ascites, Chunn, 519
- Asclepiad, the, Richardson, 266
- Asepsis, best methods of, Bernays, 138
- Aspiration, parenchymatous, 437
- Asthma, 281
- Anders, 120
- and bronchitis, Burford, 134
- another treatment of, Pearse, 96
- bronchial, Anders, 295
- Astringents, simple, internal use, Walker, 450
- Asylum conflagrations, 244
- Atheroma of vessels with over-acting heart, Jefferson clinic, 118
- Atomic weights, new table of, 292
- Ascultation percussion, Shattuck, 177
- Baby's dress, Davis, 372
- Bacillian remonstrance, 315
- Bacteriology, surgical, Senn, 475
- text-book, Fraenkel, 436
- Balanitis, treatment of, Chichester, 269
- Bamboo-sprouts as food, 138
- Barber's palsy, Adie, 178
- Barker, T. R., abortion at five weeks, 533
- Baskerville, a primitive Cæsarean section, 30
- treatment of pneumonia, 53
- Baths, use of, 307
- Bell, B. F., bones, exfoliation of, 354
- Clark, National and State Chemists in the Courts of Law, 191
- Berks County Medical Society, 117
- Berlin clinics, note from, Wilson, 97
- recent observations, Hughes, 24
- Bernhardt, poison-proof animals, 15
- Billings, F. S., original research in its relation to national economics, 65
- Bing, E. W., tuberculosis, cause and prevention, 345
- Bipolar faradization, Rockwell, 182
- Bitter, creolin, antiseptic or toxic, 31
- Blackwood, W. R. D. B., remarks about static electricity, 25
- progress in electricity, 406
- Bladder, aspiration of, Whittecar, 99
- irritability of, Brinton, 8
- irritable, treatment of, Halley, 227
- washing out, Brinton, 333
- Blepharitis marginalis, Keyser, 133
- Blepharospasm, Allport, 199
- Blodgett, acute pneumonia, 31
- Blood, increase of red corpuscles in inhabitants of high altitudes, Viault, 96
- Blood-letting, Wilks, 512
- Bone-grafting, 263
- Bones, exfoliation of, Bell, B. F., 354
- Book news, 137
- Bougies, filiform, Brinton, 305
- Brain, diagnosis, concussion and compression, Brinton, 334
- traumatism of, Chambers, 520
- Breaking glasses, Sangree, 541
- Breast, disease of, Bartholow, 218
- removal of, Terrillon, 501
- Breathing movements in relation to voice production, Makuen, 123
- proper mode, 307
- Brieflets, 226
- Bromoform, Kreiger, 139
- Bronchial catarrh, Waugh, 241
- Bronchiectasis, young children, Carr, 181
- Bronchitis, chronic, banana juice for, 483
- Jefferson clinic, 174
- Bronchorrhœa, Waugh, 218
- Brown, advantages of anesthesia by small and continuous doses of chloroform, 17
- Bruises, liniment for, Whelpley, 355
- Buck, jacket for chest affections, 435
- peroxide of hydrogen, 9
- Burn of hands, Taylor, 334
- Burns, iodoform for, Rottenberg, 542
- treatment of, 454
- Cactus grandiflora as substitute for digitalis, Hills, 34
- Cæsarean section, indications, Neale, 153
- fourth conservative, Kelly, 409
- primitive, Baskerville, 30
- Caisson disease, Ridlon, 495
- California winter resorts, Shinn, 100
- Camphoric acid as antisudorific, Combemale, 206
- in night-sweats, Hare, 310
- Cancer, hysterectomy for, Keith, 97
- male breast, 439
- mortality amongst Jews, Blaney, 57
- of colon, 282
- of the breast, Keen, 334
- of the pylorus, 304
- or ulcer of stomach, Jeff. clinic, 27
- parasitic, origin of, Warren, 120
- remedy, Adamkiewicz, 477
- treatment, by aniline, Moorhof, 225
- pyoktanin, Moorhof, 178
- of, Dunn, 123
- uterine, salol antiseptic, Marty, 309
- Carbuncle, Alvord, 137
- Cardiac medicaments, Sée, 242

- Caries, dental, preventive against, 272
 Case for diagnosis, 122
 Case of unusual interest, Morris, 227
 Castration, Riley, 419
 Cataractous lenses, Galippe, 477
 lens, Keyser, 134
 Catarrhal pneumonia, bilateral, Solis-Cohen, 8
 Catarrh, nasal, treatment of, Seilikovitch, 245
 naso-pharyngeal, Willis, 226
 Cerebral hemorrhage, 181
 lesions altering temperature, 288
 Chance and chancre, diagnosis between, Keen, 9
 on finger, Stevens, 56
 Chancres, acetanilide in the treatment of, Basilevitch, 82
 Chest diseases, new mode of dressing, Hunt, 200
 signs, causes of normal variations, 473
 Cheyne-Stokes respiration, Hallopeau, 96
 Chicago Academy of Medicine, 172
 Child-birth made easy, Gilbert, 526
 Child, manual of domestic hygiene, Uffelman, 308
 Children, practical points in management of diseases of, Love, 475
 Chills and fever, Jefferson clinic, 118
 Chinese medical aphorisms, 55
 Chisel instead of trephine for head-surgery, Keetley, 163
 Chloralamide, Gordon, 457
 Main, 501
 Chloral as a coagulant, Sée, 200
 vs. iodine injecting cavities, Sée, 436
 Chloralism, 480
 Chloroformization, statistics, Gault, 478
 Chlorosis, Jefferson clinic, 118
 Cholecystotomy, Morse, 543
 Cholera infantum, Waugh, 133
 Chorea, 247
 Rex, 334
 Waugh, 537
 Wilson, 78
 drug treatment of, Moncorvo, 202
 hereditary, Jefferson clinic, 9
 nature and treatment, Brown, 163
 treatment, Brown, 162
 treatment of, Waugh, 134
 Chrysarobin in hemorrhoids, 57
 Chyluria, cure by thymol, Lawrie, 204
 Cincinnati correspondence, 176, 265
 Cinder tea, Cadogan Masterman, 100
 City Hospital examinations, 418
 Clevenger's brain cap, 434
 Clevenger, S. V., a glorious sunset, 299
 idiosyncrasy towards fruits, 221
 pure water swindle, 454
 Climate of Santa Barbara, 160
 Clinical chart, elaborate, 306
 Cobleigh, E. A., remarkable injury, 150
 Cocaine and chloral, antagonism, Wileighby, 203
 intradermically, Magitot, 477
 points in the use of, Gleason, 204
 Cocainism, 479
 prolonged form, acute, Hallopeau, 82
 Co-education of sexes in medicine, 353
 Coffee, Love, 182
 as a stimulant, Lane, 41
 Cold abscess, Keen, 281
 to abort a bad, Bartholow, 78
 Colitis, McMurtry, 179
 Colleges, the, 374
 Colles' fracture, Laplace, 134
 Collodion dressing in minor surgery, Gottheil, 37
 Comedo, Stelwagon, 281
 Comparative neurology journal of, Her-
 rick, (book notice) 355
 Compend of diseases of children, Hat-
 field, 81
 Concussion of lungs a cause of pneu-
 monia, Burton, 35
- Condiments, evil attributed to, 453
 Condurango and conduragin, Guyenot, 479
 Condylomata, treatment of, Waldo, 419
 Conjunctivitis, granular, surgical treat-
 ment of, Darier, 242
 neonatorum, Keyser, 195
 petroleum in, Trouseau, 457
 Consolidation of colleges, 175
 Constipation, 282
 Intard, 421
 surgical point of view, Hewitt, 47
 obstinate, Rex, 242
 Convallaria, Shoemaker, 137
 Cornea, foreign bodies in, 439
 Corneal opacities, treatment by rubbing, Ferdinand, 456
 ulcers, treatment by actual cautery, De Schweinitz, 235
 Corpus luteum, Robinson, 56
 Coryza, acute, treatment, Tissier, 421
 in a child, Rex, 334
 Costal cartilage, rupture of, Heddens, 224
 Coto, Burney Yeo's formula for, 138
 Cousins, J. W., value of artificial drum-
 heads, 127
 Coxitis, Bauer, 60
 Creolin, antiseptic or toxic, Bitter, 31
 in erysipelas and eczema, Rothe, 31
 in follicular pharyngitis, Ipzig, 96
 injections in compound fractures, Mittra, 224
 Croup, laryngeal, etherization, Betz, 501
 Crusta lactea, Shoemaker, 134
 Curious case, 306
 Curve of Health, Holmes, 100
 Cutting edges, to preserve, Miller, 91
 Cyclopaedia of diseases of children, Keat-
 ing, Review, 30
 Cyclopedias, 283
 Cynobex hebetis, 29
 Cystinuria, Smith, 180
 Cystitis, Brinton, 119, 304
 Cystotomy, perineal *vs.* suprapubic, Walker, 189
- Da Costa Society, the, J. M., Doud, 94
 Dangerous vapors, Kapouskine, 477
 Daughter, the, Capp, 246
 Davidson, A. C., antipyretics, new, 354
 Davis, J. D. S., clinical history of the
 epicyclic surgical fistula, 513
 Decadence of the practice of medicine
 in China, 55
 Deficiency of native-born Americans, 99
 Dementia paralytica, Seguin, 140
 Dermatitis gangrenosa complicating
 varicella, Roberts, 201
 Dermatological bibliography, Jackson, 307
 Diabetes insipidus, Jefferson clinic, 9
 mellitus, gold in, Robinson, 501
 Purdy, 246
 Diagnostic difficulties, Hulke, 501
 Diarrhoea, anti-fermentative treatment
 of infantile, Luff, 38
 Dictionary, a compendious, Foster, 475
 Diet at sea, limited, 455
 Digestion, to aid, Hinz, 199
 Digestive ferments in surgery, Morris, 475
 Digitalis as a hypnotic, Waugh, 156
 Diphtheria, 200
 Jefferson clinic, 9
 Prudden, 356
 Seibert, 160
 Sevestre, 160
 Waugh, 241
 and subsoil water, Adams, 56
 and tetanus, immunity against, Fraenkel, 16
 cabs, omnibuses, hot beds of, 482
 liq. hydrarg. perchloride, Coward, 101
 pathology of, Eichberg, 33
 resorcine for, 39
 scarlatinal, Waugh, 203
- Diphtheria, some causes death in, Sym-
 son, 124
 sulpho-calcine in, Kennedy, 223
 synopsis of forty-five cases, Pace, 471
 treatment of, Neumann, 82
 Symptom, 101
 Van Wyck, 201
 by peroxide of hydrogen, Dickey, 35
 of throat, Manning, 438
 Diphtheritic membranes, for rapid dis-
 solution of, Caldwell, 82
 Disinfectants, poisonous, 79
 Disinfection, present position, Blyth, 269
 Displacement of abdominal viscera, re-
 lation to pelvic disease, Kellogg, 411
 Distoma pulmonalis, 286
 Dixon, S. G., address on the Koch
 remedy, 45
 care in the use of tubercle bacillus
 as a remedy in tuberculosis, 172
 Dixon's toxic solution, 525
 Dr. Alt's explanation, 540
 Dr. Billings' retirement, 122
 Dr. Loeb's election, 220
 Doctor's skill as a raconteur, 263
 Dr. Trenholme's priority, Rohé, 264
 Dog-serum, action on human blood, 542
 Dosimetry, D. J. T., 53
 Drainage of wounds, Marcy, 58
 Dressings used in Billroth's clinic, 310
 Drumheads, value of artificial, Cousins, 127
 Drunkenness, cure for, 160
 to remove after-effects, Brinton, 334
 Dry diet, 248
 Dublin joke, 548.
 Duke, Alexander, new operation for
 repair of lacerated perineum, 193
 Dysentery, treatment by irrigation, Kori-
 tin, 31
 Dysmenorrhoea, 123
 Mulheron, 375
 treatment of, Champneys, 34
 treatment, Marion Sims, 161
 Dyspepsia, a tonic for, Brubaker, 305
 nervous, treatment of, Batten, 271
 subacute catarrhal, Anders, 218
- Ear disease, unusual symptoms in mid-
 dle, Lake, 456
 Eclampsia, severe puerperal, Morrison, 237
 Eclecticism, 263
 Eclectic practice, 290
 Ecthyma, Shoemaker, 241
 Ectopic gestation, thirty-five specimens
 removed post-mortem, Formad, 408
 pregnancy, laparotomy *vs.* elec-
 tricity in, Wathen, 6
 Eczema, Jefferson clinic, 217, 218
 Stelwagon, 261
 and erysipelas, creolin in, Rothe, 31
 causes of, Bulkley, 311
 erythematous, Stelwagon, 8
 herpes, rhus poisoning, Kemper, 482
 infantile, Shoemaker, 119
 pustular, Shoemaker, 120
 of limbs, Shoemaker, 134
 of the face, Stelwagon, 282
 of the head in children, Rhoades, 282
 marginata, Shoemaker, 134
 squamousum, Stelwagon, 119
 Editorial change, 453
 Education, medical, cost in England
 and America, 483
 the, supplied by Scotch and Irish
 medical schools, 374
 Egasse, aristol, the new antiseptic, 275
 Election, Dr. Baldy's, 353
 Electrical treatment of fibroids, forty-six
 cases, Massey, 410
 Electricity, application in medicine,
 Adams, 355
 application to medicine, Adams, 436

- Electricity, improved battery, Sattler, 99
introduction of drugs into the human body by, Peterson, 232
practical application in medicine and surgery, St. Clair, 95
review of progress in, Blackwood, 406
static, Blackwood, 25
treatment of epilepsy, Niemeyer, 95
- Electrolysis of animal tissues, 29
- Electro-puncture of cystic goitre, cure, Massey, 132
- Electro-Therapeutic Association, American, Walling, 94
- Electro-Therapeutic Society of Philadelphia, 234
- Emphysema complicated with bronchitis, Jefferson clinic, 118
- Empyema, Isch-Wall, 541
- Endocarditis, murmur of, Walker, 431
- Endometritis, chronic, treatment of, Mundé, 249
treatment of, Parvin, 281
- Endoscope in urethral affections, Lewis, 287
- Enteralgia, Jefferson clinic, 242
- Enterorrhaphy, circular, new method, 538
- Enuresis, 160
santonine for, Spohn, 526
- E Parvo Multum, Woodbury, 165
- Epicystic surgical fistula, clinical history, Davis, 513
- Epilepsy, 521
Jefferson clinic, 118
Stelwagon, 8
from injury to the head, cured by tracheotomy, Miller, 31
following depressed fracture produced by forceps at birth, Lane, 123
importance of examining the teeth in, Bakowski, 56
local, Féré, 206
treatment by continuous current, Niemeyer, 95
trephining for, 80
- Epileptiform seizures, Jefferson clinic, 261
- Epistaxis, Solis-Cohen, 281
plugging for, Daly, 503
to stop, Lusk, 247
- Epithelioma, Stelwagon, 119
of face, Goodman, 10
- Equino-varus, congenital double, with excision both tarsi, Dixon-Jones, 214
- Erysipelas, 160
Nuding, 245
Wilson, 194
and eczema, creolin in, Rothe, 31
and insomnia, Waugh, 156
Jefferson clinic, 119
menthol locally, Benedict, 419
surgical treatment, Rogers, 140
treatment, Pirogoff, 163
- Essentials of surgery, Martin, 246
- Ether injections, motor paresis following, Styles, 122
- Etherization, death from suffocation during recovery, Tate, 309
- Euthanasia, 175
- Examination of normal pelvic viscera, Kelly, 75
- Examination questions at the colleges of Great Britain and Ireland, 142
- Examinations, City Hospital, 451
- Examiner's bill, 11
- Exophthalmic goitre, Jefferson clinic, 27
- Exostosis of humerus simulating axillary dislocation, Roberts, 519
- Eyes, care of, in health and disease, Skinner, 137
- Eye, diseases of, Nettleship, 95
strain the cause of headache, Cal-lans 286
the, in general disease, Leonard, 21
- Face presentations, treatment of posterior, Bernardy, 416
- Fecal impaction, vesical symptoms, Hackett, N. P., 354
- Female medical education in Scotland, 273
- Female silver catheter, Godfrey, 241
- Fever, Hare, 418
- Fevers, hand-spray in treatment of, Lynch, 439
of Middle Tennessee and their treatment, Shapard, 1
- Ferric bromide, Hecquet, 201
- Fibro sarcoma of foot, Gibney, 349
- Fifty remembers for druggists, Whelp-ley, 49
- Filaria sanguinis hominis major and minor, Manson, 102
- Fistulas, injection for, Bodenhamer, 199
- Fistula in ano, 179
Brinton, 282
internal opening, Brinton, 431
- Fissures of anus, proctitis and piles, 57
- Flat-foot, rheumatic, Harrington, 357
resection of astragelo scaphoid articulation for aggravated, Dixon-Jones, 214
- Flatulence, Waugh, 281
- Fluorescein, Smith, 201
- Flushing as a cause of morbid change, Hutchinson, 267
- Folliculitis caused by mineral oil, Le-loir, 162
- Forceps, cases which imperatively demand, Clark, 413
child's arm caught in fenestrum, Millikin, 409
epilepsy caused by, Lane, 123
use of, Parvin, 334
warning about, Goodell, 454
- Formula, a country practitioner's, 375
- Fracture at elbow, compound, comminuted, Strock, 281
humerus, surgical neck, Strock, 241
of leg, compound comminuted, Jefferson clinic, 119
non-operative treatment in delayed union, Ridlon, 114
- Fractures, compound, 356
treatment of, Benjamin, 241
Keen, 242
massage in, Crickx and Lebrum, 62
multiple, Harvey, 505
- Fractured clavicle, new apparatus for, Curtis, 248
- Fraenkel, immunity against diphtheria and tetanus, 16
- France, depopulation of, 476
- Frankhauser, J. W., alarming symptoms from antifebrin, 285
- Frau Gelly, 315
- Free dispensary for women, Bigelow, 54
- Frontal sinus, mucous polypi, Hulke, 312
- Fuchsine, value of, in treatment of chronic ulcers, Rosenberg, 16
- Gall stones, treatment of, Lekarskie, 123
- Gangrene after typhoid fever, Lancet, 32
- Gasserian ganglion, removal, Rose, 179
- Gastric affections, Winternitz, 542
- Gelsemium in neuralgic affections, 374
- Gingivitis, a form of, common to dogs and men in India, Roberts, 355
- Glaucoma, Keyser, 231
- Gleet, Szadek, 308
- Glycozone, Waugh, 57
- Goddard's astringent gargle, 455
- God help the rich—the poor can steal, 443
- Goodman, H. E., epithelioma of face, 9
- Good points from the Medical World, 61
- Goitre, Parvin, 282
cystic, Wyeth, 473
cure by electro puncture, Massey, 132
simple, 304
treatment for, Jefferson clinic, 78
- Gonorrhoea, Pooley, 222
Castillan, 477
ergotine in, Roicki, 207
injections for, Keen, 242
salicylate of mercury, Siltermintz, 96
- Gonorrhoeal inflammation, 356
orchitis, Waugh, 218
- Go west! Starkey, 53
- Grandin, E. H., peroxide of hydrogen in gynecology and obstetrics, 85
- Grippe, for la, Magruder, 199
have we the, 52
- Grubert, oesophagotomy for foreign body, 31
- Guaiaicum, Murrell, 57
- Gymnastics, abuse of, 477
- Gynecological and Obstetrical Society of Baltimore, 75
larynx, the, Von Kleing, 356
surgery, cocaine in, Humiston, 409
compend on, Morris, 177
- Hackett, N. P., fecal impaction, vesical symptoms, 354
- Hadra, B. E., wiring of the vertebrae as a means of immobilization in fracture and Potts' disease, 423
- Hahnemannia Monthly, 263
- Hall, A. Wilford, 81
- Hare, Hobart A., 353
- Harlem Medical Association, 7
- Hayes, Plym S., notes on Apostoli's method for the treatment of uterine fibroids, 211
- Headache, Walker, 1, 7
continuous, Browning, 60
persistent, Jefferson clinic, 27
trephining for, Prewitt, 160
- Headaches, Hurd, 123
- Heart dullness, right sided extension of, Walker, 431
fatty degeneration, Brinton, 242
Solis-Cohen, 261
hypertrophy of, Jefferson clinic, 119
thrill felt at apex, Walker, 431
- Hektograph, 15
- Hematuria, malarial, Mason, B. M., 374
- Hemoptysis, checking, Waugh, 241
- Hemorrhoids, chrysarobin in, 57
Shuford, 123
non-operative treatment of, Thomas, 180
Allingham's ointment, 457
- Henry, M. H., refutation of statements in Lydston's article on varicocele, 447
- Hepatic cirrhosis, Saundby, 58
- Heredity, health and personal beauty, Shoemaker, 266
- Hernia, Brinton, 218
in infancy, DeGarmo, 483
of pregnant uterus, Reeves, 59
scrotal, operation for radical cure, Laplace, 339
treatment by aspiration, Hern, 183
- Hepatic surgery, Shield, 289
- Herpes, abortive treatment, Leloir, 207
zoster, Harrison, 267
- Hewitt, C. E., constipation from a surgical point of view, 47
- Hip disease, place of fixation in the traction treatment, Lovett, 430
joint disease, adjusted locomotion in treatment of recovering stage, Taylor, 349
Shaffer, 495
pathological dislocation of, Townsend, 216
splint, new automatic traction, Myers, 350
- Hirsh, A. B., delayed operation in pyosalpinx, 46
- Historical note on the evolution of gynecic surgery by American surgeons, Wilson, 219
- Hoang-nan in pruritus ani, McMurray, 57

- Hoffman, J. E., relations of imperfect surgery to sequelæ of pelvic and abdominal operations, 510
- Hovent, Dr., Pneumo-Therapeutic Institute of Brussels, 531
- How he won his spurs, 316
- Hutchinson, W. F., the West Indies as a sanitarium, 3, 86, 111, 339, 449, 467
- Hughes, recent observations at the Berlin clinics, 24
- Homœopathy and life insurance, 539
- Hydatid cyst-wall a filter for microbes, Chauffard, 477
- Hydrastis vs. phthisis, Palmer, 178
- Hydrocele, Keen, 304
Gross, 282
cure of, Wyeth, 160
traumatic, Brinton, 431
Jefferson clinic, 27
- Hydrophobia cases, King, 540
- Hygiene of every-day life, Strock, 297
text-book, Rohé, 122
- Hymen, treatment imperforate, Ross, 546
- Hyperidrosis, Seilikovitch, 284
- Hypnosis, 135
- Hypnotism and hypnotic suggestion, 284
- Hypnotic action of digitalis, Waugh, 156
- Hypermetropia, Keyser, 133
- Hypersecretion of milk, 123
- Hypnotism, diseases treated at the Charité by, Luys, 96
- Hysterectomy for cancer, Keith, 97
- Hysteria, treatment toxic Saundby, 97
calmative for, Grassett, 160
- Hysteropexy, extra-peritoneal, Assaky, 506
- Ichthyosis, Jefferson clinic, 27
- Idiosyncrasy towards fruit, Clevenger, 221
- Illinois, Governor's message, 137
State Board of Health, Rauch, 159
- Illustrations in Boston medical journals, 135
- Immunity against diphtheria and tetanus, Fraenkel, 16
- Improvised sterilized dressings, Wyman, 224
- Index medicus, 102
- Indigo as emmenagogue, Jones, 439
- Influenza, Jefferson clinic, 27
epidemiology, 457
immunity by vaccination, Goldschmidt, 438
return of, 198
sexual desire in, Machette, 526
- Ingrowing toe-nail, Wyeth, 164
- Injection after removing tuberculous gland, Laplace, 372
- Injury to the head, Rex, 119
- Insane, can gynecologist aid alienist with, Stone, 412
- Insanity, delusional; probably due to jaborandi, Waugh, 448
- Insomnia and erysipelas, Waugh, 156
- Institutul de Chirurgie, Anul 1890-1891, 307
- International clinics, Keating, 418
Medical Annual, 1891, 286
- Intestinal antiseptics and drug tolerance, Péré, 291
walls, atony of, Rex, 194
- Intestines, operations on, Ashton, 431
- Iodoform, deodorization by creoline, Vaczi, 286
formula for injecting septic cavities, Haynes, 199
- Iodol for dressing wounds, Strock, 281
- Iodopyrine, Muenz, 478
- Iodo-sulphate of cinchonine, Woodbury, 120
- Iowa quack, 525
- Iron, absorption of, Socin, 356
method of giving in large doses, Taylor, 309
- Irregulars' bluff, 92
- Iron casts and coaptation splints, Whitman, 497
- Jaborandi, delusional insanity, probably due to, Waugh, 448
- Jacket for chest affections, Buck, 435
- Jefferson College, vacancy at, 80
- Joint reflexes from pelvic inflammation, Potter, 415
- Jones, Jos., observations on Koch's lymph, 425
politization, 10
- Keen, W. W., new method of compressing subclavian artery, 509
- Kellogg, J. H., report of sixty cases of uterine myomata, 107, 147, 167
- Kentucky State Medical Society, 472
- Keratitis, interstitial, Keyser, 133
- Keyser, P. D., glaucoma, 231
- Kidney, calculous, gas in, LeDentu, 477
gout of, Vansant, 372
injuries to the, Winslow, 547
- King's royal germetuer, 442
- King, W. P., cases of hydrophobia, 540
- Knee joint, excision of, Phelps, 348
- Koch's lymph, Da Costa on, 136
and Jenner's, Woodbury, 61
and scientific therapy, Semmola, 445
in its action on bacilli Gibbes, 60
liquid resembling, Hueppe, 438
observations on, Jones, 25
sale of, 263
tuberculous joint disease, treated by, Shaffer, 117
method, abnormal reactions and anomalies in its use for tuberculosis, Von Ruck, 209
remedy, Browne, 285
reports of Dixon and Laplace, 51
the truth at last, 79
treatment in Prussia, official report, 287
- Koritin, treatment of dysentery by irrigation, 31
- Labor, induction of premature, in contracted pelves, Williams, 302
- Lacerated wound of axilla from barbed wire, Lowe, 22
- Laceration of cervix uteri, operation, Godfrey, 260
- Landau, absorbing power of uterus and vagina, 31
- Lanoline soap, remarkable properties, 178
- Laparotomy vs. electricity in ectopic pregnancy, W. H. Wathen, 6
ten selected cases, McIntyre, 415
exploratory, Deaver, 537
- Laplace, E., Koch's treatment of tuberculosis, 43
hernia, radical cure of scrotal, talipes equinus tenotomy for, epithelioma of lip, 339
- Larynx, abscess of, Mackenzie, 32
cyst of, Solis-Cohen, 194
spasm of, Solis-Cohen, 174
- Laryngitis in vocalists, treatment, Faulkner, 436
- Lateral curvature, a case of, Judson, 349
- Laveran's malarial germ, examination of blood for, 455
- Lead poisoning, treatment, Oliver, 336
prophylactic, 507
iodide of iron in, Lavrand, 199
Jefferson clinic, 118
in seltzer-water, Moisseau, 82
- Legal medicine, recent decisions, Riley, 140
- Legalized prize fighting, 12
- Leidy brothers, death of, 418
- Leonard, P. J., the eye in general disease, 21
- Leprosy in the West Indies, 29
in India, 220
- Lettuce as a carrier of disease, 464
- Leucocythemia, enlarged spleen with, Barrs, 224
- Leucorrhœa, infantile, Parvin, 241
- Le Verrier and Adams, 135
- Licensing boards, permanent organization, 306
- Lloyd, J. H., monomania, 401
- Lochia, fetor of, Broxall, 437
- Local nutrition, 283
- Lowe, Geo. N., lacerated wound of axilla from barbed wire, 22
- Low temperatures, Seilikovitch, 435
- Lumbago, Wilson, 242
- Lumbricoids, Rex, 174
- Lung, contusion, treatment, Picqué, 206
compressed, can it be dilated, Hoffmann, 541
- Lungs, influence of deep breathing upon vital capacity, Timofeyer, 34
- Lupus, Hutchinson, 162
of the face, Walker, 267
treatment by methylene, Croomes, 473
- Lydston, G. F., varicocele, review of the treatment, 362
- Lymphadenitis, Gerster, 226
- McAlester, surgical bacteriology, 32
- McBurney Point, Gibbons, 476
- McHatton, H., malarial hemoglobinuria, 491
- Mackenzie, abscess of the larynx, 32
- Maggots or screw-worms in the human nose, Seay, 194
- Malaria, hematozoa of, Laveran, 225
treatment, 185
- Malarial hematuria, 306
hemoglobinuria, McHatton, 491, 500
- Management of children, 545
of Philadelphia medical journals, 263
- Marine hospital service, 136
- Marriage, Birchard, 375
- Mason, B. W., hematuria malarial, 374
- Massage in chronic ulcers, 32
in fractures, Crickx and Lebrun, 62
in incontinence of urine in women, Bagot, 268
- Mastoid operation and its value, Richards, 96
- Materia medica, Leonard, 475
and therapeutics, Shoemaker, 436
- Measles, German, analysis of symptoms, Digby, 336
- Meat for export, inspection of, 353
- Medical examiners, bill proposed, 18
and Surgical College of New Jersey, 17
education, 417
- Medicine, progress in practical, Coleman, 473
- Mediastinal growths, signs of, 313
- Membrana tympani, rupture of, Phillips, 160
- Meningitis, basilar, Jefferson clinic, 119
- Menière's disease, Mettler, 138
- Meningocele, Keen, 334
- Menstruation, Spivak, 128
cessation of, Jefferson clinic, 261
disorder of, Bartholow, 261
return after menopause, Thomas, 458
- Mercury, soporific action, Tyson, 183
salicylate in gonorrhœa, Siltermintz, 96
- Methylene chloride, 136
- Metritis, parenchymatous, Parvin, 333
- Michigan, health in, May, 528
State Board of Health, 453
as a health resort, 122
- Microcephalus, craniectomy for, 80
- Microcidine, Berlioz, 476
- Microbic antagonism, Bewley, 59
- Midwifery dispensary, N. Y. City, first annual report, 453
the first, Lanphear, 499

- Missouri pharmacy law, proposed changes in, 56
- Mitral disease with pleural effusion, Jefferson clinic, 9
- Mlle. Giraud, my wife, Belot, 541
- Monomania, Lloyd, 401
- Monstrosity, remarkable, Price, 81
- Montgomery, E. E., valedictory address to graduating class Medico-Chirurgical College, 359
- relation of family physician to abdominal surgery, 253
- Morphine, physiological action on the cat, Guinard, 96
- Morphinomania, 481
- Mosquitoes, inoculation by, Finlay and Delgado, 161
- Mountains, effects of high altitudes on the blood, 244
- increase of red corpuscles of blood in inhabitants of, Viault, 96
- Mouth-wash, Aulde, 57
- Movable kidney, 196
- Multiple neuritis, Finny, 99
- Multiple sclerosis, Waugh, 218
- Muscular rheumatism, Bartholow, 260
- Mutter museum, 435
- Mutual Aid Association of Philadelphia County Medical Society, 146
- Mydriatics after cataract operations, 454
- Myers, A. F., slacked lime as a disinfectant, 427
- Myopia, progressive, Keyser, 134
- Myxoedema and exophthalmic goitre, symptoms contrasted, Bramwell, 287
- Nail in the skull, Dewey and Riese, 160
- Narrow chests, treatment, Jenks, 477
- Nasal polypi, removal, Solis-Cohen, 333
- National and State chemists in the courts of law, Bell, 191
- Needles, extraction of broken, Steele, 439
- Nervous cough, Rex, 282
- Neuralgic pains, 304
- in the head and chest, Jefferson clinic, 260
- Neuritis, peripheral, diagnosis and treatment, Preston, 240
- Neurominosis, Townsend, 427
- New additions to remedial agents, 200
- New Jersey laws, English view of, "Surgeon," 14
- State Board of health, fourteenth annual report, 285
- Nickel, carbon monoxide, McKendrick, 440, 542.
- Nicotine psychosis, Kjellberg, 456
- Nightmare, Bamford, 308
- Nipples before confinement, Marshall, 371
- supernumerary, Marshall, 371
- Nitrites, Upshur, 184
- Nitrogen-containing foods, their relation to morbid states, Woodbury, 489
- Non-union after osteotomy in severe rachitis, Ketch, 495
- Nose, cold, cause of, Seilikovitch, 245
- and throat, local therapeutics, Phillips, 476
- Nottage, H. P., tablet triturates in country practice, 131
- Nuding, W. H., erysipelas, 245
- N. Y. Academy of Medicine, 494
- Pasteur Institute, first annual report, Gibier, 264
- State, health of, 315
- Medical Association transactions for 1890, 418
- Nystagmus, miner's, Jones, 268
- Obscure case, Keen, 334
- Obstetric case followed by free discharge for months, Bradshaw, 416
- clinical teaching in America, McKee, 414
- Obstetrics, cocaine in, Bousquet, 178
- progress in, Anderson, 473
- Obstruction, intestinal, 377
- Occlusion of the os uteri during four days' parturition, Neale, 301
- Ocular troubles in ataxia, sclerosis and hysteria, Charcot, 305
- Œsophagotomy for foreign body, Grubert, 31
- Ointment soothing skin, Shoemaker, 134
- Oöphoralgia, malarial elements, Coe, 292
- Oöphoritis, treatment, Bell, 179
- Ophthalmia, sympathetic, operative treatment, Story, 161
- Orchitis and epididymitis, modified Langlebert-Horand bandage, Martin, 419
- Organizing an operation, 53
- Original Research, Dr. Billings' paper, 80
- in its relation to national economics, Billings, 65
- Orthopedic surgery, uniform nomenclature, Townsend, 116
- Ostitis, tubercular, resection of hips for, Dixon-Jones, 214
- Otitis-media, post grippe, Stirling, 95
- Ovarian cysts, immense, Cartledge, 125
- Ovaritis, chronic, pathology and treatment, Skene, 409
- Oxyuris vermicularis, treatment of, 272
- Ozone, does it arrest or modify certain diseases? Sharp, 158
- Ozonized air, D'Arsonval, 526
- Pace, J. G., synopsis of symptoms, course and treatment of, forty-five cases of diphtheria, 471
- Page, K. B., notes on use of aristol, 426
- Paget's disease of nipple, Bowlby, 459
- Pain, what is it? Beebe, 140
- Palpation of the normal uterine appendages, Kelly, 77
- Pambotano, anti malarial properties of, Roussel, 529
- Pancrobinin, Reed, 315
- Paralysis agitans, Bartholow, 334
- Jefferson clinic, 27
- diphtheritic, Burnett, 351
- infantile spinal, treatment deformities following, Willard, 440
- treatment of, Simon, 272
- Paste that will stick anything, 507
- Pasteur and his contributions to medicine, Hurd, 522
- Parenchymatous nephritis, 282
- Patents on medical subjects, Gouch, 42, 64, 84, 126, 145, 443
- question of, Shoemaker, 221
- vs. Ethics, Gates, 176
- Pathological specimens, Williams, 77
- Patient's record, Brennan, Review, 14
- Payne, J. H., screw worms, 264
- Pelvic pain, hot colon douches for, Forest, 457
- structures, restoration after injury, Marcy, 408
- Pennsylvania State Medical Society, 498
- Pereirine, 82
- Pericarditis, chronic, with adhesions, 8
- Perineum, new operation for repair of lacerated, Duke, 193
- prevention of laceration, Duke, 98
- Peritonitis, operation for, Ross, 420
- treatment by eserine and pilocarpine, Hoover, 225
- tubercular, operating on, Ross, 124
- Perityphlitis, Keen, 217
- Peroxide of hydrogen, 262
- Buck, 9
- Gilmer, 372
- in gynecology and obstetrics, Grandin, 85
- in scarlatinal diphtheria, Waugh, 203
- sinus treated with, Waugh, 156
- Squire, 290
- Peroxide of hydrogen, treatment of diphtheria by, Dickey, 35
- Persian eye opener, 273
- Perspiration, excessive; of feet, Winogradoff, 501
- Pertussis, remedies for, Boas, 420
- Petersen's rectal bag, Harrison, 270
- Peterson, Fred'k, introduction of drugs into human body by electricity, 232
- Pharmacology of the Newer Materia Medica, 266, 436
- Pharyngeal disease caused by pneumococcus, Rendu, 545
- Pharyngitis, Brinton, 242
- creoline in follicular, Ipzig, 96
- Phenacetine in sciatica, 247
- test of purity, 419
- Phenomenal high temperature, 539
- Philadelphia County Medical Society, 535
- Electro-therapeutic Society, 51
- Philosophy, a natural, Quackenboss, 436
- Phloridzin diabetes, Moritz and Pransnitz, 225
- Phonograph in testing hearing, Fiske, 123
- Phosphorus and its compounds; their uses, 307
- Phthisis, acute, degeneration of renal epithelium in, Kahlden, 501
- curability of acute, 28
- hot air inhalations in, Charles, 224
- hydrastis in, Palmer, 416
- in high altitudes in England, 312
- intra-bronchial injections in, Masini, 200
- Jefferson clinic, 174
- new treatment, Sée, 438
- pyrexia of, Williams, 337
- treatment of, Charles, 270
- Physicians' all-requisite time and labor-saving account book, Review, 14
- Pigmentations of pregnancy, to remove, 199
- Pigments, pathological deposition of, Laplace, 134
- Piles, proctitis and fissures of anus, 57
- Pilocarpine in aural disease, Politzer, 59
- Placenta prævia treatment, Kolff and Treub, 139
- Plain talks on electricity and batteries, Bigelow, 266
- Pleurisies, tubercular sero-fibrinous, Netter, 477
- Pleurisy, 513
- Pleuritic effusion, Jefferson clinic, 118
- effusions, surgical treatment, Heuston, 504
- Pneumonia, 304
- aborting, Rossiter, 419
- abortive treatment of, Epleg, 544
- acute, Blodgett, 31
- acute primary, Stephens, 404
- against digitalis in, Carhart, 503
- catarrhal bilateral, Solis Cohen, 8
- Jefferson clinic, 118
- Virchow, 139
- digitalis in infantile, Murphy, 546
- in which the reformed method failed, Slifer, 213
- is concussion of lungs a cause, Burton, 35
- treatment, Fenwick, 184
- Baskerville, 503
- Solis-Cohen, 537
- Pneumonic crisis, acute transitory cedema during, Kahane, 309
- Pneumonia, diplococcus of, Fraenkel, Wechselbaum, Holt and Prudden, 98
- Pneumo-therapeutic Institute of Brussels, Hovent, 531
- Poisons, action on nerve cells, Langley, 162
- Poisoning in dyeing establishments, 121
- Poison, proof animals, Bernhardt, 15
- Politzerization, Jones, 10

- Porter, W. G., the progress of modern surgery in 25 years, 317
- Postal service, our, 94
- Post-mortems, Newth, Review, 14
- Post-mortem wounds, resorcine in, Anderson, 52
- Post-partum hemorrhage, iodoform gauze in, Velitz, 419
result of conservative design, Christian, 35
- Potts' disease, importance of thorough examination in suspected, Sayre, 216
laminectomy for, Lloyd, 348
- Practical hints, 432
- Pregnancy, Parvin, 281
vaginal operation for extra-uterine, Fenger, 545
- Presbyterian Hospital, 106
- Prevention of cruelty to human beings, 249
of narcotic inebriety, 188
- Prewitt, J. V. internal urethrotomy, 300
- Principles of surgery, Senn, 222
- Priority in operations on uterine fibroids, Trenholme, 220
- Proceedings of the Philadelphia County Medical Society, 266
- Proctitis, piles and anal fissures, 57
- Professional business, 474
distress in England, 418
experts, 94
- Prolapsed funis, Emery, 419
- Promotion by seniority (editorial), 13
- Prostatic electrolizer, Shoemaker, 50
- Prostate, enlarged, Forbes, 78
galvano-cautery for, Bottini, 421
- Prostitution in Japan, 335
- Pruritus ani, hoang-nan in, McMurray, 57
of eczema, Vanderbeck, 161
- Psoas abscess, pus of, Laplace, 134
- Psoriasis, Hutchinson, 123
Stelwagon, 119
- Ptomaines, 337
- Public charity in Europe, 485
- Pudendal thrombus, history of a case, Thompson, 212
- Puerperal convulsions, prevention by premature delivery, Fry, 415
sepsis, six cases, Danneker, 227
- Pure water swindle, Clevenger, 454
- Purgative, Bartholow, 27
- Purpura hemorrhagic rheumatica, Brinton, 480
- Purser, modern diagnosis of stomach diseases, 15
- Puzzling the doctors, 136
- Pyoktanin as an antiseptic, Boldt, 416
Burghard, 501
in cancer, Meyer, 375
Squire, 290
Tiffany, 98
treatment of cancer by, Moorhof, 178
- Pyosalpinx, delayed operation, Hirsh, 46
- Pyrexia, Smart, 227
- Quinine amblyopia, Leidy, 480
by synthesis, Grimaux, 439
hypodermic, formula, Laveran, 477
idiosyncrasy, Collins, 526
- Rachitis infantilis, Larabee, 473
- Rapid gain of flesh, Bartholow, 218
- Recent editorial, 499
- Reciprocal relations of public and medical profession, Todd, 472
- Rectum, mucous membrane about, Laplace, 372
potato in, Stocquart, 206
- Redness of a structure, Laplace, 372
- Rejected candidate, 335
- Relation of the family physician to abdominal surgery, Montgomery, 253
imperfect surgery to the sequelæ of pelvic and abdominal operations, Hoffman, 510, 517
- Remarkable injury with recovery, Cobleigh, 150
- Removal of the "Journal" to Washington, 244
- Renal calculi, Sée, 179
- Report of Reading Board of Health, 307
- Resopyrine, 478
- Resorcine in post-mortem wounds, Anderson, 32
- Resorcin, Chapman, 547
- Respiration, researches upon, Chapman and Brubaker, 266
- Results of City and State Treasury calamity, 453
- Resuscitation of new-born, 286
- Retinol, new antiseptic and solvent, 484
- Review of insanity and nervous disease, 541
- Rheumatic hyperpyrexia, treatment, Male, 437
inflammations, the shoulder joint in, Walker, 431
- Rheumatism, treatment of chronic, Staple, 33
- Rheumatoid arthritis, Wirgman, 282
Wirgman, 334
- Rhinitis, atrophic, Thomas, 520
chronic atrophic, general practitioner's treatment of, Loeb, 124
powder for scrofulous, Cozzolino, 82
treatment of atrophic, Hall, 547
- Rhus poisoning, ammonium chloride for, Kemper, 526
- Rickets, congenital, Myers, 494
- Rights of a dead body, 478
- Roburite, poisoning by, Spurgin, 377
- Rosenberg, fuchsine in treatment of chronic ulcers, 16
- Rothe, creolin in erysipelas and eczema, 31
- Round worms, Jefferson clinic, 261
- Roussel, A. E., anti-malarial properties of pambotane, 529
- Saccharine preparations of, 178
- Sal-bromalide (salicyl-bromanilide), F. Woodbury, 344
- Sale of proprietary medicines in Italy, 284
- Salicylic acid, Spenser, 178
Selikovitch, 499
- Salol as antiseptic in uterine cancer, Marty, 309
- Salt, 250
- Sangree, E. B., trapping lumbricoids, 264
- Scabies, Stelwagon, 174
For, 222
- Scarlatina, treatment, Thorne, 438
- Scarlatal diphtheria, Waugh, 203
throat, treatment, Manning, 438
- Scarlet fever, Caiger, 542
- School reform, German, 29
- Schuylkill water, 434
- Sciatica, phenacetine in, 247
- Sclerosis, amyotrophic, lateral, Gray, 454
- Screw worms, Payne, 264
- Scurvy, Rex, 281
- Seay, R. W., maggots or screw-worms in the human nose, 194
- Seborrhea, Cantrell, 333
- Secret of success, Williams
- Sedative lozenge, Wyeth, 454
- Seilikovitch, S., hyperidrosis, 284
low temperatures, 435
treatment of nasal catarrh, 245
cause of cold nose, 245
- Semmola, M., Koch's cure of tuberculosis and scientific therapeutics, 445
- Senn's method of resection of intestine, Lane, 458
- Separation of right parietal and occipital bones, traumatic, Myers, 349
- Septicemia due to sewer-gas, Moulin, 311
- Serious charge, 526
- Sewer-gas, experience with, Waugh, 261
- Sewerage of foreign cities, Keyser, 177
- Sexual ethics, 138
neurasthenia, Beard, 285
impotence in male and female, Hammond, Review, 55
- Shapard, J. C., fevers of middle Tennessee and their treatment, 1
- Sharp, A. P., does ozone arrest or modify certain disease? 158
- Shinwell, B. T., the surgical antiseptics, 323
- Shoemaker, J. V., the prostatic electrolizer, 50
- Should the editorial go? 158
- Sialorrhea paroxymal, in general paralysis, 542
- Sinus treated with peroxide of hydrogen, Waugh, 156
- Skin-grafting by machinery, 465
- Skull, results of injuries to, Norton, 504
- Slacked lime as a disinfectant, Myers, 427
- Slifer, H. F., pneumonia in which the reformed method failed, 213
- Snake-venom and its antidotes, Brunton, 101
- Sore throat, Jefferson clinic, 119
- Specific medication, 201
Watkins, 290
- Spectacle-frames, construction and adoption, Thomas, 278
- Spinal curvature, Smith, 222
- Spinal disease in children, early stage, Owen, 543
surgery, limitations of, Abbe, 227
- Spivak, C. D., menstruation, 128
- Splints, plea for early application, Starkey, 470
- Spontaneous combustion, Reynolds, 308
- Sprains, Brinton, 333
- Starkey, H. A., go west, 53
plea for early application of splints, 470
- Staunton, Va., 158
- St. Clement's Hospital, 243
- Stephens, T. G., acute primary pneumonia, 404
- Sterling, death of Dr. E., 135
- Stimulate, when to, Stokes, 463
- St. Louis clinique, 135
- Stomach, modern diagnosis of disease of, Purser, 15
- Stricture, catheter, Brown, 438
- Strock, D., the hygiene of every-day life, 297
- Styrone, formula for, Beach, 57
- Subclavian artery, new method of compressing, Keen, 509, 518
- Sublimate and staphylococcus aureus, Abbott, 432
- Sudden death, 157
- Sulfonal, Toney, 57
bayer, new use for, Rosenberg, 80
- Sulpho-calcine in diphtheria, Kennedy, 223
- Sulpho-carbolates in incipient typhoid fever, Waugh, 202
- Sulphur, formula for external use, Szadek, 483
waters, utilization in the treatment of disease, 220
- Sunstroke, remote effects, Barlow, 521
- Surgery, progress of modern, in twenty-five years, Porter, 317
- Surgical antiseptics, Shimwell, 323
bacteriology, McAlester, 32
- Sweating of phthisis, tellurate of sodium for, Combemale, 355
- Synovitis, acute, tapping for, Owen, 179
- Syphilis, cerebral, Perching, 308
and general paresis, Lavallée, 478
inherited, in children, Goodman, 241
mercury in, Keen, 334
modern treatment, Hutchinson, 372
pulmonary, Satterthwaite, 544
- Syphilis, tertiary, Jefferson clinic, 118
treatment, Leloir, 502

- Syphilitic eruption, Wirgman, 261
trouble, Vansant, 371
ulcer of the leg, Stelwagon, 78
- Tabes dorsalis, symptoms, Marina, 207
Tablet triturates in country practice, Nottage, 131
Taking cold, Bosworth, 355
Tampons, vaginal, use of, Sellman, 410
Tape-worm, Campi, 123
Tellurate of soda as antisudorific, Combe, 206
Tennessee, fevers of Middle, Shapard, 1
Terpene iodide in acute diseases of the lungs, Gregg, 180
Tetanus and diphtheria, immunity against, Fraenkel, 16
treatment by injection of blood serum, Baginsky, 225
Thebaine, narcotine and derivatives, Stockman, 138
The microbe's lair, 187
Therapeutic principles, 335
The three fates, Crawford, 418
Thomas, death of Dr., 499
Thompson, F. G., pudendal thrombus, with history of a case, 212
Throat, accumulation of muco-pus in, Solis-Cohen, 217
affection of scarlatina and diphtheria, treatment, Manning, 438
Thymol, cure of chyluria by, Lawrie, 204
Tibia, malignant growth of, Morton, 78
Pinea tonsuraus, 291
Tinnitus aurium, diagnosis and prognosis, Jones, 459
Tongue as a respirator, Scatcliff, 502
excision entire, 438
incomplete use of, S. Solis-Cohen
Tonic, Bullock, 138
Tonsillitis, Hudson, 40
Longstreth, 334
suppurative, Rice, 124
acute, Waugh, 27
pyoktanin in, Gates, 546
Tonsils, abscess of, how to scarify or open, Smith, 482
hypertrophied, igni puncture for, Cullen, 480
Torticollis, spasmodic, new operation for, Keen, 141
Tracheotomy, epilepsy from head injury cured by, Miller, 31
Trachoma, Keyser, 133
Transactions American Gynecological Society for 1890, 123
of the American Association of Obstetricians and Gynecologists, 266
of the American Orthopædic Association, 266
Trapping lumbricoids, Sangree, 264
Trephining, indications for, Deaver, 480
Trichloracetic acid, Gleitzmann, 247
Truth of Bible maxims, 499
Tubercle, detection in sputum, 244
Tubercular meningitis, Winter, 438
peritonitis, operating on, Ross, 124
Tuberculosis, abdominal, 283
treatment of, Van Zandt, 223
another remedy, Franjen, 502
Burt, Review, 15
care in the use of tubercle bacillus as a remedy in, Dixon, 172
cause and prevention, Bing, 345
certainty in diagnosis of, Potter, 98
dog-serum as a remedy for, Héricourt and Richet, 181
early diagnosis of, Mirinescu, 376
gold in, Drzewieck, 547
in children, Boltz, 312
injections of animal-serum for, Richet, 542
Koch's treatment of, Laplace, 43
Liebreich's remedy, Moore, 455
local, Boursier, 477
preparation of gold and iodine solutions of Shurley Gibbs, Clark, 141
Tuberculosis, remedy, Liebreich's, 261
Resumé of Prof. Dixon's address on the Koch remedy, 45
Shurley-Gibbes' treatment, Brown, 310
simulated, Sturges, 497
treatment of, 93
Shade, 526
by compressed gases, Seé, 420
tuberculin in, Cheyne, 438
Tubes, histology of, Williams, 409
Tumor at or near pons varolii, Jefferson clinic, 281
on the back, Keen, 241
Turning twelve hours after membranes rupture, Lancet, 33
Turpentine as a germicide and antiseptic, Schleppergrill, 480
Twelve lectures on the structure of the central nervous system, Edinger, 198
Twins, premature birth, Streett, 347
Typhlitis, 282
Typhoid, alleged cure for, 437
fever, Waugh, 241, 487
albuminuria after, Batten, 91
antiseptic in, Yeo, 376
ataxic symptoms in, Waugh, 281
a typical phenomena in, 307
bacillus coli as a cause of, Rodet, 37
best diet for, Waugh, 281
causation, Destree, 477
cold bath treatment, Hare, 288
gangrene after, Lancet, 32
in and near Bethlehem, Pa., 374
incipient, sulpho-carbolates in, Waugh, 202
Typhoids, milk toast for, Longstreth, 241
Ulcer, chronic, Keen, 174
gastric, treatment of, Saundby, 199
of leg, skin-grafting for, Jefferson clinic, 194
serpiginous, Keyser, 133
Ulcers, corneal, simple treatment of, Valude, 248
fuchsine in treatment of chronic, Rosenberg, 16
massage in chronic, 32
University Medical Journal, 29
Unrefreshing sleep, 373
Urethral calculus, Pace, 541
Urethane, Rademaker, 439
Urethra, pain near meatus, Lane, 434
spasmodic stricture following labor, Eliot, 416
Urethrotomy, internal, Prewitt, 300
Urinary analysis, Canfield, 418
Urine, germicide powers of, Richter, 267
examination of for life insurance, Purdy, 450
excessive discharge of, 281
incontinence, Rex, 304
Parvin, 218
Jefferson clinic, 281
Urticaria, Stewart, 134
Ustilago maidis, Hubbard, 309
Uterus, atrophy of, Sims, 481
erosion of os, Parvin, 174
inversion of, Parvin, 194
mechanical obstruction in diseases of, Hulbert, 123
parturient, cœliotomy for rupture, Coe, 410
retro-displacement and prolapse in old unmarried women, Ashton, 371
rigidity of os, Tureaud, 526
rupture, cœliotomy in, Coe, 483
Uterine appendages, treatment of diseases of, Duncan, 156
disease, neurotic complications, 434
fibroids, hemorrhage, Parvin, 305
notes on Apostoli's method of treating, Hayes, 211
flexions, Parvin, 242
Uterine myomata, report of sixty cases, Kellogg, 107, 147, 167
Uterine surgery, minor, Baldy, 409
Vaccination, death after, Gaucher, 207
Vaginismus, Parvin, 195
Vaginitis, acute, treatment, Godfrey, 503
Parvin, 78
with gas cysts, Herman, 542
Varicocele, Bennett, 268
refutation of statements in Lydston's article, Henry, 447
treatment, G. J. Lydston, 369
Venereal diseases, Wainwright, 161
ulcers, 546
Vertigo, Waugh, 281
Virginia State Board, 433
Visiting list for 1891, Med. News, 137
Visual disturbances caused by wearing glasses, Friedenwald, 520
Von Ruck, Karl, abnormal reactions and anomalies in the use of Prof. Koch's method for tuberculosis, 209
Walker, H. O., perineal *vs.* suprapubic cystotomy, 189
Warmth in dwelling houses, 13
Water, testing drinking, 29
Wathen, W. H., laparotomy *vs.* electricity in ectopic pregnancy, 6
Waugh, W. F., acne, 27
abdominal tenderness, 218
acute tonsillitis, 27
albuminuria, 27
ataxia in typhoid fever, 281
best diet for typhoid fever, 281
bronchial catarrh, 241
bronchorrhea, 218
cardiac depression, 351
checking hemoptysis, 241
chorea, 537
delusional insanity probably due to laborandi, 448
digitalis as a hypnotic, 156
diphtheria, 241
dysentery, 351
erysipelas and insomnia, 156
experience with sewer-gas, 261
flatulence, 281
glycozone, 57
gonorrhœal orchitis, 218
influenza, the, 351
influenzal vertigo, 351
multiple sclerosis, 218
pulmonary hyperæmia, 351
scarlatinal diphtheria, 203
sinus, peroxide of hydrogen, 156
sulpho-carbolates in incipient typhoid fever, 202
typhoid fever, 241
typhoid fever, 487
vertigo, 281
West Indies, 80
as a sanitarium, Hutchinson, 3, 86, 111, 339, 449, 467
Whelpy, 50 remembers for druggists, 49
Whooping-cough, Talaman, 57
Wilson, C. M., historical note on the evolution of gynecic surgery by American surgeons, 219
Wine, influence of some elements on peptic digestion, Hugouneney, 478
Winter resorts, California, Shiinn, 100
Wiring of the vertebræ as a means of immobilization in fracture and Potts' disease, Hadra, 423
Woodbury, F., nitrogen-containing foods and their relations to morbid states, 489
sal-bromalide (salicyl-bromalimide), 344
Worldly wisdom, 200
Wounds, drainage of, Marcy, 58
Year-book of treatment, 1891, 307
Yeagain, E. M., a case, 354
Yellow fever, 94
influence frost, Littlejohn, 526
Zinc-plate for wounds, Moras, 477
sulfhydrate in gynecology, Barduzzi, 82

The Times and Register.

Vol. XXII, No. 1.

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Whole No. 543.

ORIGINAL ARTICLES.		PAGE			PAGE			PAGE
A FEW REMARKS ON THE FEVERS OF MIDDLE TENNESSEE AND THEIR TREATMENT.			Angina Pectoris.		9	Post-mortems.		14
By J. C. Shapard, M.D., Winchester, Tenn.		1	Mitral Disease with Pleural Effusion.		9	The Patient's Record.		14
THE WEST INDIES AS A SANITARIUM.			Keen		9	Tuberculosis, or Pulmonary Consumption.		15
By William F. Hutchinson, M.D.		3	Hereditary Chorea.		9	Burt		
LAPAROTOMY VS. ELECTRICITY IN ECTOPIC PREGNANCY.			Diabetes Insipidus.		9			
By W. H. Wathen, M.D., Louisville, Ky.		6	Diphtheria.		9			
SOCIETY NOTES.			PHILADELPHIA HOSPITAL:			THE MEDICAL DIGEST.		
HARLEM MEDICAL ASSOCIATION		7	Peroxide of Hydrogen.		9	Politization.		10
THE POLYCLINIC.			MEDICO-CHIRURGICAL HOSPITAL:			The Hektograph		15
JEFFERSON MEDICAL COLLEGE:			Epithelioma of the Face.		10	A Local Anaesthetic Formula		15
Acne Rosacea.		8	EDITORIALS.			Poison-proof Animals.		15
Epilepsy.		8	THE EXAMINERS' BILL		11	Modern Diagnosis of Disease of the Stomach.		15
Incomplete Use of Tongue.		8	"LEGALIZED PRIZE-FIGHTING"		12	The Value of Fuchsin in the Treatment of Chronic Ulcers.		16
Catarrhal Pneumonia Occurring on Both Sides.		8	PROMOTION BY SENIORITY		13	Immunity Against Diphtheria and Tetanus.		16
Eczema Erythematosum.		8	ANNOTATIONS.			Fraenkel		
For Irritability of the Bladder.		8	Warmth in Dwelling Houses		13	On the Advantages of Producing Anaesthesia by Small and Continuous Doses of Chloroform.		17
Chronic Pericarditis, with Adhesions.		8	LETTERS TO THE EDITOR.			MEDICAL NEWS AND MISCELLANY,		17
Brinton		8	An English View of the New Jersey Law.			ARMY, NAVY, AND MARINE HOSPITAL SERVICE		20
Diagnosis Between Chancre and Chancroid.		9	"Surgeon"		14	NOTES AND ITEMS		iv, xii
Keen		9	BOOK NOTICES.					
			The Physician's All requisite Time- and Labor-saving Account-book		14			

Original Articles.

A FEW REMARKS ON THE FEVERS OF MIDDLE TENNESSEE AND THEIR TREATMENT.¹

By J. C. SHAPARD, M.D.,
WINCHESTER, TENN.

I HAVE been observing the fevers of Middle Tennessee for nearly forty-five years, and studying them as best I could. I say as best I could, as my work has principally been in a small town and in the country. I have seldom had the opportunity of making post-mortem examinations, and therefore have not studied their lesions; neither have I been able to study their etiology with the microscope, as have some of our more fortunate brethren, but have had to content myself with giving my attention to their symptomatology, their course, and the effect of treatment on them. This much said, my observations are not likely to have more importance attached to them than they deserve. And yet I feel that my opportunities for such study have not been altogether devoid of advantage.

As is well known, the two geological divisions of the State, the Central Basin and the Highland Rim, constitute nearly the whole of Middle Tennessee. The former is about six hundred and fifty or seven hundred feet above the level of the sea; the latter about one thousand feet.

The basin—Lower Silurian—is a very rich country, and is in a very high state of cultivation. It is a

¹ Read before the meeting of the Tri-State Medical Association of Alabama, Georgia, and Tennessee, at Chattanooga, October, 1890.

limestone formation. There is lime—the carbonate—in the rocks, lime in the soil, lime in the water, lime everywhere.

The Highland Rim, three hundred or three hundred and fifty feet above the basin, is in the great carboniferous formation, but is sub-divided, at least on its eastern side, into two lesser and very dissimilar divisions. The inner one, immediately surrounding the basin, is a silicious, or sandy formation, which abounds in the best of free-stone water, with many fine mineral springs, but with a very thin soil. This division, being a sandy formation, water does not remain on the surface, but percolates deep down into the earth; consequently, malarial fevers have always been very infrequent in it.

The outer division of the rim, sometimes called the Red Lands, is a limestone formation with a clay sub-soil. It is a beautiful, fertile, and fine farming country, but its distinctive feature, so far as this paper is concerned, is its clay sub soil, through which water cannot pass; consequently, it remains on the surface in ponds and marshes, and malarial fevers are, or were, quite common in it. And yet there are high and dry sections of this division, where such fevers were never very prevalent. East of the rim rise the Cumberland mountains, known by geologists as the Cumberland table-land, which is also in the carboniferous formation, and is two thousand feet above the level of the sea. It is sand-capped, with a poor soil, but its water and air are pure, and it has always been almost, if not entirely, exempt from malarial fevers.

This divides Middle from East Tennessee, and belongs equally to them, at least it will be so considered in this paper, so far as Middle Tennessee is concerned.

My town, Winchester, is situated in the outer divi-

sion of the rim, in the Red Lands, but near its inner division. My work has principally been on the Rim, in both its sub-divisions, but I am in easy reach of the Central Basin, to which I make frequent visits, and I am also near enough to the table-land to make an occasional visit there. This I consider a great advantage in studying the fevers of the country, diversified in so many respects, such as varieties of soil, differences of altitude, and consequent differences of temperature.

We will now take a nearer look at the fevers of Middle Tennessee. In early times, say from the first settlement of the country up to about 1840, while the country was new, and being cleared up and prepared for its present high state of cultivation, the fevers were altogether malarial. They were periodical, intermittent, and remittent. They sometimes became congestive, or malignant. They prevailed almost entirely during the summer and fall, but there was an occasional vernal return, particularly of an intermittent type, and they were found alone along the streams and on the low lands, the high-lands being exempt from them. And I particularly call attention to the fact that they were very prevalent in the basin, not so prevalent in the rim, but in this division they were more prevalent on the Red Lands than on the inner or siliceous portion; in fact, they were seldom seen in that section, and they were never seen on the mountain or table-land, at least never originating there.

There was no difficulty in diagnosing those fevers—a differential diagnosis was hardly known then,—and there was no difficulty in their treatment. Quinine cured them, and it cured them promptly. As above said, they were periodic. Quinine was an anti-periodic, and enough of it being given, the patient was soon well.

The fevers, and most of the other diseases of that period, were considered to be *sthenic*, and bore depletion by the lancet or otherwise, to an extent that would now be considered hazardous in the extreme.

About the year 1840, a great change came over the diseases of the country. A revolution made its appearance—typhoid fever began its terrible career. It came as gently as the falling snow, and yet as ruthlessly as an invading army, and no pen could describe the ravages of its march. It took possession of the whole country, prevailing alike on the high and the low, was as prevalent, in proportion to population, on the table-land as in the basin, in the siliceous portion of the rim as in the clay-lands—and it had all seasons for its own. It may not have been so prevalent in summer as in winter, but it was found at all times. It was typhoid fever everywhere, and every case was typical. And it impressed its characteristics, at least to some extent, on most of the other diseases of the country, which, from that time to this, have been more or less *asthenic*, or *adynamic*. No more bloodletting; harsh purgatives were all laid aside, and all sedatives used with the utmost caution; and quinine ceased to be a specific.

Such, and so great, was the revolution. I will not say absolutely that there were not malarial fevers, to some extent, along the streams and lowland of the basin, and on the clay-lands of the rim, but if so, they were so overshadowed by the prevailing typhoid fevers as not to be observable without the most careful inquiry. But typhoid fever was prominently manifest, from the highest point of the mountain to the lowest valley of the basin. The habitat of malarial fevers was the marshes and lowlands; that of typhoid fever was the highlands as well as the low.

Typhoid fever held absolute sway—was master of the situation, about twenty years, perhaps not quite so long, when a change was again observable, but not so manifest as the one above alluded to. The symptoms of malarial fever began to be observed again, but invariably in connection with those of typhoid fever. It seemed as if, so to speak, malarial fevers were again recovering themselves—as if the conqueror had lost his prestige, and the conquered were again asserting themselves. I have seen this in real life—very real—and so have my hearers.

From that time, the symptoms of both typhoid and malarial fevers were seen side by side in the same cases, for a number of years, say fifteen or twenty. I don't know what its lesions were, neither do I know what the causes were, but the symptoms of both diseases were plainly seen by all men, even by the non-professional. It might have been, and probably was that the malarial symptoms were more manifest in the early stage of the disease, and the typhoid symptoms in the later stages, but the course of the disease was that of typhoid fever—was continued fever, and no amount of quinine would arrest it. It was during this period that the theory of typho-malarial fever came into vogue. I hardly know how, or when it happened, but I found myself, in common with most of the physicians whom I met, holding that theory. The facts that I saw all seemed to favor that theory, and I settled down in the conviction of its truth, although I had not then investigated the matter to any considerable extent. But this theory is not incompatible with the further theory that in such a compound fever the typhoid element may predominate in one section of the country, and the malarial element in another section—local causes favoring the one element in one section, and the other in another, which I think was really the case. For instance, in the table-land, where malaria is, and always was, almost unknown, the disease approaches more nearly to the old typical typhoid fever than is the case in the basin, fourteen hundred feet nearer the sea level, and where, in fact, it is more like the malarial fever was before the advent of typhoid fever—and this apparent on a smaller scale. In the barrens, or siliceous division of the rim, it is more typhoid, while on the outer division, or clay-land, it is more malarial.

These two divisions of the rim, it will be remembered, are lying side by side of each other, on the same elevation, one thousand feet above the sea, and in the same great geological formation, the carboniferous, although they differ, geologically, in subdivision, the one having a sandy soil, the other a clay, *e. g.*, thus demonstrating most clearly the influence of geological formation on disease.

But, behold, another change in the fevers of the country, which has been going on for a number of years, perhaps ten, or a dozen. During this period, the typical symptoms of both typhoid and malarial fevers have gradually disappeared—have faded away, so that we do not see them in conjunction as was so common a few years ago. Who now ever sees a typical case of typhoid fever, or even a typical case of malarial fever, as that disease was fifty years ago? Or even a typical case of typho-malarial fever as that disease was seen a few years ago? Occasionally, a case of intermittent fever is seen, where in the malarial period hundreds were seen, and if a remittent fever should make its appearance, it soon takes up the line of march as a continued fever, in combination with, or in sub-ordination to, a typhoid fever, but not as a continued malarial fever.

I have now traced the two great fevers of Middle Tennessee—typhoid and malarial—from their origin through their changing fortunes, in their combination and fusion, down to the present time. And although the fever now, for there is only *one* fever now, shows none or but few of the peculiarities of those fevers in the past, yet, if they have not lost themselves in the fevers of the day, I do not know where they are.

I sometimes illustrate this to my satisfaction, thus: After the war our State was full of Northern and Southern people. They had their distinctive Northern and Southern peculiarities, which could be seen at a glance. But time has effaced these peculiarities, and we are a homogeneous people, all Tennesseans!

The sum of the whole matter is, that aside from an occasional intermittent fever, there is only *one* fever in Middle Tennessee to-day, which is typhoid and malarial; more typhoid in some section, and more malarial in others.

It has been maintained by some that there is a continued malarial fever *per se* in this country, which I do not believe. Malarial fevers in Middle Tennessee, so far as my observations have extended, have always been periodical, and whatever continuity there may be in them they owe to their union with typhoid fever, which is a continued fever.

The foregoing observations would seem to show that the fevers of Middle Tennessee have not been fixed and unchangeable in their course; but, to use a popular phrase of the day, they have been influenced by their environment.

If such has been the case in the past it will doubtless be so in the future. At least I shall believe these views to be correct until the contrary is proved.

However, I am well aware that the microscopists of the day are making some wonderful revelations, and I hold myself in readiness to bow to their decision when they shall show me that I am wrong.

But I am not here to-day with any iron-bound theory of fever; I mean the fever of to-day, and of Middle Tennessee. I am well aware that the subject is in a somewhat chaotic condition, and I am constantly looking for new light and more light on it. I cling not to the dead past; but am ready to join hands with the living present. I am ready to abandon the terminology of the past, and adopt new definitions, if they will better answer our purpose.

I propose to say something about the treatment of the fevers, or fever of Middle Tennessee; but it will not be much.

I don't know anything about curing a continued fever. I don't undertake to arrest it, or cut it short, as is sometimes said. And yet I am unremitting in its management and treatment, and often see patients recover under such a course that I think would otherwise have died.

Of course cold water has its value in the treatment of fever; but by baths I have found it impracticable in country practice, and believe it to be so anywhere outside of a hospital.

I prescribe the new antipyretics, particularly antifebrin and phenacetine, and I think I accomplish much good with them; but I watch them very closely.

In old times, when malarial fevers alone prevailed, quinine cured them. They were periodic, quinine was an anti periodic, and broke up periodical fevers, but no amount of it will arrest a continued fever, even for one hour. It has been claimed that in the combined fevers of the country it will eliminate the malarial element; but it is not certain that it does even that much, and it is very certain that it does not arrest the disease, and therefore it is of questionable

utility in such cases. But quinine is also an antipyretic—as such it is not, however, as efficient as the articles above-named. And, to be efficient, more of it is required than is safe, given throughout an attack of fever. Its anti-periodic property may make it valuable in a threatened congestion, and its tonic property may make it do good service in a convalescence.

Then, all things considered, there is, in my opinion, entirely too much quinine used in the treatment of continued fever in Middle Tennessee. More of it, however, may be profitably prescribed in some sections than in others—more in the lowlands than in the highlands. In excessive quantity it does great harm. It disturbs the stomach, depresses the heart, and sometimes injures vision and hearing.

Physicians are often blamed, nowadays, for prescribing alcoholics in the treatment of disease. They are accused of making drunkards of their patients, and increasing the tide of dissipation that is threatening the overthrow of our civilization. Grave charges, indeed! And the assertion is often and boldly made that we could dispense with these destructive agents and use other means equally valuable, but devoid of danger.

In reply to all this, I only wish to say that I often think my fever patients are benefited by the use of alcohol in some form, and that some of them—if not many—would die without it. And, as I do not know any substitute for it, I shall feel it my duty to continue to prescribe it.

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

CHAPTER VIII.

LAST in the chain of islands that unites North and South America, largest and most varied in beauty of all the Leeward and Windward groups, Trinidad next calls for our attention.

It is lovely, in the distance, whether approached from seaward across the broad Atlantic, or from the other islands through which our readers have been following us for so long a time. The three lofty peaks that gave the island its name, "The Trinity," still rise from masses of deep green to tell why; and still the traveler, from whatever land, exclaims in his tongue, as did Columbus in musical Castilian, "*Que isla gloriosa!*"

With the exception of Jamaica, there is more variety of climate accessible to tourists and invalids in this island than in any other of the group; for it has thriving and pleasant towns in many parts of the island, at different elevations. In so large an area as this, some 1,800 square miles of irregular quadrangle, intersected with streams and seamed with mountain chains, and traversed by rail, there is necessarily much to see; much to do for busily inclined folks, and quiet rest for those whose strength is not equal to exertion.

Caribs called the island "Iere" in their musical tongue, from glittering humming birds that then, as now, gemmed the dark green of perpetual foliage—and have a pretty story about the Pitch Lake of La Brea and the birds.

There is a diversified geological formation, including that of the palæozoic, tertiary and pliocene ages, with no recent coral formation, except a little coral around the shores, and there is a wonderful variety of soil and vegetation. Nowhere are tree ferns—those splendid specimens fifty feet high—found in greater beauty than in Maraccas Valley, and groves of cacao trees in cool shade of *bois immortelle*, are

lovely beyond compare. Orchids abound; and I was told by collectors that there are some sixty varieties in the island, some of them very rare. An avenue of samang trees that leads from the main road to St. James' barracks, beyond the savanna of Port-of-Spain, is said to be unique in the Western Continent; the trees having been brought as shoots many years ago from Farther India.

In the capital city, there are several excellent hotels. The Family Hotel, the Hotel de Paris, and four or five others, offer all possible comfort at the regular rate of two dollars a day, or ten dollars a week, and one could not be better housed. At the "Paris" good Madame Louise takes personal charge of her guests, and sees that they lack nothing. One gets all native dishes there, and has a chance to try them; while at the "Family," where tourists mostly go, the cuisine is much more English.

Passengers are warned to look out for swindling boatmen. Shallow water compels ships to anchor a long way out, and everything is carried ashore in boats. The only way is to demand the government tariff, or to make a bargain before starting, and the harbor police will see to it that both parties keep to their agreement. Boats will hold three or four passengers, and the regular fare is two shillings (50 cents) each; but a party can get ashore for a shilling apiece, including baggage.

The same warning applies to cabmen. I have been asked ten shillings for a drive to Maraval, four miles out, and have gone for three. There is a tariff, but it is too high, and a bargain is much better.

It is hot. Even in St. Joseph or Arima, which I regard as the coolest places in Trinidad, the mercury averages 80° in January and February, rarely falling below 78° at night or ascending above 88° in mid-day. Visitors will find, however, the early morning delicious in freshness, that seems much cooler than the glass indicates, and will draw their wraps around them as the cool trade wind reaches them, sifting through dense leaves dripping with dew. Only exertion and improper food make heat oppressive. One who drives regularly, keeps in from midday sun, eschews much meat and swears off from all stimulants, will become accustomed to the high thermometer in a day or two, and be happy.

There is excellent society. Owing to the varied population, Trinidadians are tri-lingual, speaking English, French and Spanish, and with equal facility. It is funny enough to hear a little tot half a dozen years' old, commence a sentence in French, continue it in English and wind up in good Castilian, which I have heard more than once in Port-of-Spain. For the same reason, one finds circles of English, Spanish and French society of the first class, entrance into any or all of which is promptly given to the traveler who is properly accredited. Hospitality is unbounded. There is something in the free, open air, and genial warmth that opens people's hearts, and dinners, receptions and the like, are frequent on every hand.

The harbor entrance is dramatic. On either side are lofty hills that narrow the strait we sail through to a hundred yards, beyond which another sea stretches its serene welcome towards us, from encircling shores so far distant to the south as to be lost in Venezuelan sky. Not one, but many of these openings cleave the ring of land that holds confined this inner lagoon; this great lake that is called the Gulf of Paria. The Spaniards called them Bocas, or mouths, adding such names as circumstances suggested, as Monos, from the apes that peopled these hills; or Navios, where ships could go; or Grande,

largest of them all; and these names have never been changed. Through these passages a swift tide plays wild pranks upon ships that, driven by sails only, dare its power, and the bones of one gallant East Indiaman, from among the others that have vanished, still mark the dangers of the Boca de Navios.

To the left, a range of peaks high enough to be visible at a great distance, stretches along the northern coast, and on their southern face deep valleys show like black lines on the green. Swell follows swell, mountain succeeds mountain in blue perspective as we sail nearer, until, entering the ring we advance upon Trinidad and see the outlines assume different forms, until at last we drop anchor before Port-of-Spain, and prepare to enjoy a visit to Iere, the land of humming birds.

It is a crown colony; that is to say, under direct supervision of the Colonial Secretary, of London, without general suffrage. Its present governor, Sir William Robinson, K.C.M.G., is a gentleman of great sagacity, long experience in colonial affairs, and withal a hospitable gentleman of much literary ability; and his charming wife, who is a native of Nassau, presides gracefully over a household into which it is a pleasure to be invited to enter. The governor's attentions to a tourist, an invitation to dinner or a ball, settles one's status everywhere, and one is sure to be heartily welcomed.

Letters of introduction should come from persons well acquainted in the island to prominent men, for of late, speculations in asphalt and cacao have drawn so many down there that residents are compelled to draw the line somewhere, and mere perfunctory credentials are not sufficient.

In every direction from the capital are excursions, the greater part of which may be taken with small expenditure of time and money. The one to Maraval I have already mentioned as worth going over a dozen times. A little farther away lies Blue Basin, at the head of Diego Martin valley, some nine miles from town. It is reached by good roads, which extend almost to the pool, and a carriage should take a party of four out for a pound—five dollars. The way leads through the Hindu suburb of LaKeron, where is the only Brahmin temple out of Hindostan, and its stately baba-jee, chief priest, past the Samang avenue of St. James' barracks, out into the country among the cane. The road might be in the suburbs of Bombay or Madras. There is the same straight, white road, bordered by scanty palms, behind which jungle grows close; the same rows of Eastern huts, with brass pans and kettles outside; the same quiet, bright-eyed, clear-featured and straight-haired coolies, with submissive "Salaam, sahib," and the same naked, brown babies, with white lines of caste drawn on forehead or cheek. Leaving the Hindus, the way went on past little villages, each with its story of murder or violence, told with earnest gravity by negro driver, to carefully listening passengers. At last it wound upward beside a dancing brook that is the outlet for Blue Basin, until we left the carriage and climbed a hundred feet or so to the brink of the pool. Through lacing vines and clinging ferns some sixty feet above, is seen a little patch of blue sky, from the center of which a frightened little brook seems to slide down into shadow in foaming lace to the basin, from which reflected sunlight shines back in a cobalt blue that gives the Basin its name.

Beside the pool for attraction, there are strange plants and flowers, and over all a misty sense of fresh coolness that envelopes the valley and makes it a pleasant place to rest after the drive. Heat seems ex-

cluded by thick greenery, and if visitors have been wise enough to bring luncheon with them from their hotel, nothing prevents a delightful picnic in the hottest part of the day outside.

Shops of Port-of-Spain are large and stocks heavy. One can purchase any needed article cheaply, and although prices are not quite as low as at Barbados, they are small enough. I found in one of the tailor's shops a New York cutter who had emigrated and opened a neat little shop on a side street, where he made up Broadway garments at Chatham street prices, and made money, too. All sort of goods, in fact, a sort of Macy's, may be found at the Caledonian House on King street, where everything that is sold in the West Indies is displayed. There are especially fine lawns shown here, made only for the tropics, which our ladies said were simply exquisite and not to be found even in New York.

Other things to see in daily drives around town are the fine Government Buildings, with good library, the ornate Police Barracks, the Anglican and Roman Catholic Cathedrals, neither of any beauty inside or out, and the Union Club; especially the Club. My heart goes out in thanks to the kind officers of this hospitable institution, who never fail to extend to a friend or acquaintance the hospitalities of their comfortable home, where they keep up a good restaurant, and retain several chambers at the service of such as prefer them to hotels.

Then, beside the great savanna already spoken of, there are numerous lesser open places and park-like streets that give plenty of breathing space for all, including the inevitable and essential turkey-buzzard, whose foul face and curious antics appeal at once to the twin senses of curiosity and disgust at every turn, on every corner. Nasty as they are, I have had more than one hearty laugh at their clumsy battles and wise looks from watery, bleary eyes, as they slowly and reluctantly make way for a passer-by.

To St. Joseph, the ancient capital of Trinidad, one goes by rail now, and when one climbs the hill past Calvary to the pretty plaza in front of Dr. De Wolf's residence finds one's self before as fair a vision of tropical scenery as ever enchanted traveler's eyes. At the foot of a gently sloping hill, a mile away, a double row of water alders, or some such aquatic bush, marks the course of a little stream, scarcely more than a brook in size. Yet up this Caroni river Sir Walter Raleigh drove his armed boats from the Gulf of Paria and captured from the Spaniards their chief town; they not believing it possible for any craft, however small, to ascend the stream. In the seventeenth century there was no stopping at trifles among the rovers of the Spanish Main.

Beyond the river, the St. Augustine chimneys are the only white that breaks the green clear away to Montserrat Hills, where flaming leaves of *bois immortelle* changes hues to crimson, and with its miles of spread shows the admiring stranger crimson clouds that grow on trees, probably for the first time.

Up here the air is purer than in Port-of-Spain, and I found a blanket comfortable in the early morning, even if the thermometer remained nearly at the same heat, and the city is very healthy, as is the whole island, if one is careful. It will hardly do to be exposed to night air with its high dew point, or to indulge in prolonged dissipation, and then call the climate dangerous. Brown, of Cleveland, tried hunting alligators in the swamps by early moonlight, and nearly lost his life thereby, with dengue fever. Perhaps he thinks the climate is bad. But there have been no epidemics in Trinidad for years, and with

such rigid and well enforced laws as they have, there is small danger of one.

Whoever goes to St. Joseph must either have a resident acquaintance who can "put him up," or plan to return the same day; for there are no hotels. But as it is only six miles from Port-of-Spain, with many trains, it is easy to go and return before dinner, for there is not much to see. In the cathedral are some fair statues, and in the churchyard adjoining an old burial vault, dating 1682. When one has seen these, the view from the plaza, and made the Stations of the Cross on Calvary near by, he will be ready to return; unless he have friends there who will keep him as long as possible.

In the latter case, or in any case indeed, a visit to the famous and great St. Augustine sugar estates will richly repay a visitor, who will see for the first time coolie laborers at work, and at the same time watch the manufacture of pure sugar. Every attention is shown even to strangers, and their presence heartily welcomed.

If one is fond of riding, nothing can be more charming than an excursion up the Maraccas Valley, to the Falls, which resemble the Staubbach, only infinitely more beautiful. The round distance is some sixteen miles, and horses must be arranged for a day or two in advance. Your Port-of-Spain landlord will attend to this, but a material portion of the expense may be saved by addressing J. G. De Silva, St. Joseph, who is accustomed to arrange these excursions.

Besides the lovely cascade at the end of the journey and its closed gateway of lofty cliffs clad in greens of unknown names, there are beautiful bits all the way, with occasional groups of the tree ferns that are so rare, and no less than seven fords across the dancing stream before we reach the estate La Florida, end of traveled road. Thence, perhaps for an eighth of a mile, people foot it, and it pays.

But of all the trips of the island, the one to the Pitch Lake, of La Brea, is the most curious. If you chance to be in Port-of-Spain on Monday or Saturday, you may take advantage of a stumpy little steamer that runs the round trip in one day, and do it quickly; if not, you must go to San Fernando by rail any afternoon, stay over night, and go early in the morning to the lake. There are two hotels, one kept by a funny old black woman, who tells her guests that the other one is in charge of "a mizzable nigga", sah. I keeps hotel for de superiorities, sah, and dat ar man for de inferiorities." So I presume that Mrs. Glasson's is the best, and poor enough at that.

It is no part of my plan here to attempt a detailed description of the lake, except to say that any other name than lake would have done as well for such an arid, hot, black, uninteresting plain as we reach after so much trouble, and to add that as reflected heat is excessive from the shining, odorous pitch surface, great care must be taken not to stop there too long.

The Mud Volcanoes, as they have named certain mounds of earth some three feet high that are situated near a place called Monkeytown, interested me as promising effective cure for some of the many forms of rheumatism that are common in the tropics, to say nothing of leprosy. But after a tedious journey to Princes Town and then by horse to the spot, there was nothing but hot water ejected, occasionally muddy, and bursting out with considerable force. A journey there will not pay.

The leper question is admirably cared for in Trinidad. These unfortunates are sequestered in a spacious asylum at Cocorite, a few miles out from Port-of-Spain, under the careful and kind supervision of Dr.

Rake, who is a recognized authority on the disease, and who welcomes all American medical men who care to visit his charge. Very few lepers are seen in Trinidad streets, and these are under supervision.

Besides these tourist attractions, there is a variety of scene, a tone of society, and a diversity of things to do in Trinidad, that only Jamaica and Cuba of all the islands can equal. And if any one has tried to lead a party of friends about in foreign lands, he will find the most difficult of his questions, "What shall we do next?" And, when one has become fairly well acquainted in Port-of-Spain, this "schwer Frage" answers itself.

ST. JOSEPH, TRINIDAD, MARCH, 1890.

LAPAROTOMY VS. ELECTRICITY IN ECTOPIC PREGNANCY.¹

BY W. H. WATHEN, M.D.,
LOUISVILLE, KY.

ELECTRICITY, the only foeticidal means now recognized as orthodox by physicians who practice destroying the life of the foetus in ectopic pregnancy without laparotomy, is no longer used for this purpose where the pregnancy has continued beyond three and a half or four months, and is seldom used after the third month. At this time the foetus cannot be killed except by electro-puncture, and the complications and the deaths consequent to this practice have been so numerous that the most radical advocates of electricity are afraid to introduce the electrodes into the gestation sac. The use of electricity in extra-uterine pregnancy is practically confined to the United States, and while it is advocated by men of recognized ability and learning in obstetrics and gynecology, I am constrained to believe that very soon it will have no support.

The immediate and subsequent results of electricity as a foeticide, are put in the most favorable attitude in a paper by Dr. Brothers, in the February, 1890, issue of the *American Journal of Obstetrics and Diseases of Women and Children*. Every fact supposed to favor its use is made to sound its praise extravagantly, but the many unfortunate results that speak volumes against its use are quietly passed by, or an effort is made to brush them aside. Still, the conclusions of the author furnish the strongest proof in favor of laparotomy.

These statistics compared with the statistics of laparotomy show conclusively that the use of electricity in extra-uterine pregnancy is more dangerous, granting that there was no error in diagnosis.

But just here we have another argument in favor of laparotomy, for the difficulty, and sometimes the impossibility of diagnosing extra-uterine pregnancy in the early months, is so manifest to experienced physicians that it would be ridiculous to claim that in all these cases pregnancy existed, while in the cases where laparotomy is done a diagnosis may positively be made by seeing the embryo or the chorionic or placental villi. If the embryo or foetus in an extra-uterine pregnancy is killed by electricity, a more or less diseased condition of the pelvic structures is left that endangers the health or the life of the woman; the dangers usually being increased as pregnancy advances; but if a laparotomy is done there is no obstructed tube, or other pathological condition left, and if the woman recovers from the imme-

diate effects of the operation she is entirely cured. Her life is no longer in jeopardy because of the danger of pelvic abscess, sepsis, or exhaustion following an effort to discharge the suppurating contents of the gestation sac through fistulous tracts into the rectum, vagina, bladder, or through the abdominal walls. If we could eliminate the cases where there was an error in diagnosis we should find that the mortality from the use of electricity and the bad after-results are far in excess of what follows laparotomy in the practice of experienced operators.

In an examination of Brothers' report of the subsequent behavior of twenty-five cases, observed at periods varying from one to eight years after the employment of electricity, we must be impressed with the fact that at least fifty per cent. of all cases carefully observed, had thickening or distinct tumor that may at any time require laparotomy to save the woman's life, or to cure her of confirmed invalidism.

In cases where laparotomy has been done, the mortality has not exceeded five per cent., and nearly all the women that recovered from the immediate effects of the operation were permanently cured. Most of these operations were done after rupture of the sac, where the conditions are not so favorable in laparotomy work.

Laparotomy, in all cases where the advocates of electricity would defend its use, is so simple and so free of danger that I believe an experienced operator could save at least ninety-five per cent. of his patients, probably ninety-nine per cent. And before the end of the third month there is no condition requiring laparotomy where the operation is more easily done, or where the immediate or subsequent dangers are fewer. In fact, its simplicity, compared with the operation for many pathological conditions in the pelvis, is so decided that in the practice of a successful laparotomist, who observes the rules of clean surgery, and adopts the most approved technique, the patients should recover. Tait's operations have been for ruptured tubal pregnancy, and he reports but two deaths in more than fifty patients. The first woman he operated on died, because he did not then know the correct technique in such cases, and his second death was where the woman was in fatal shock before the operation.

One of the reasons given in favor of electricity is that these women cannot always be operated on by an experienced laparotomist. Nor can electricity be always used by men who are familiar with its successful use in such cases. If it is necessary to refer the woman to some specialist in laparotomy, it will as often be necessary to refer her to some specialist in electricity, who has all the electrical appliances necessary for good results in such work.

The services of an experienced abdominal surgeon may be obtained as easily as the services of a man experienced in the successful use of electricity. The operation is so similar to the operation for the removal of enlarged and slightly adherent ovaries, that a description of it would be unnecessary. If the sac has become adherent to any pelvic structure, it should be gently but quickly separated and ligated at its base with a double ligature, being careful to include both the distal and proximal ends of the vessels.

In conclusion, I wish to show you two specimens which will illustrate some of the phases of extra-uterine pregnancy. The first is a placenta with the foetus attached, showing the ovaries and tubes successfully removed by me some months ago. This is a tubal pregnancy that ruptured into the folds of the broad ligament. The second is a uterus with its an-

¹An abstract of a paper read before the Tri-State Medical Society of Tennessee, Alabama and Georgia, at Chattanooga, October 15, 1890.

nexa, showing a ruptured tubal pregnancy into the abdomen at about the sixth week. This was removed, post-mortem, by Dr. Kelch. The rupture occurred thirty-six hours before death. Dr. Kelch made a correct diagnosis soon after the rupture, and urged the patient and her family to allow a laparotomy. This was refused until an hour before her death, and when I entered her room she was dying. Her life could have been saved had she consented to an early operation.

Society Notes.

HARLEM MEDICAL ASSOCIATION.

SESSION 1890-91.

DR. E. FRIDENBURG, President, in the Chair; DR. LEARY, Secretary.

THE Third Regular Meeting of the Harlem Medical Association was held Wednesday, December 3, at 5 West One Hundred and Twenty-fifth street, New York.

DR. E. L. COCKS presented a patient, S., male thirty years, truck driver, whom he first saw May 11, 1889. Family history, negative. Complained of numb feeling over right eye, including the temporal and molar regions; also, tingling sensations, starting just in front of the right ear, running across the nose, and including the right half of the upper lip. He did not feel the eyelid on winking, nor a piece of cotton passed over the cornea. The eye protruded so that it was on a line with the nasal bone. He first noticed that the right eye was growing larger three months previous to his first visit; could not close the lid over the right eye. On pressing over this eye backward and slightly downward, a tumor as large as a hazelnut could be felt. It was immovable, and quite hard. Its depth could not be determined. The cornea was clear, but anæsthetic. The pupil was fully dilated, but did not respond to light. Vision in right eye entirely absent. Left eye, $\frac{2}{3}$. The ophthalmoscope showed the veins much enlarged; but the arteries were smaller. The optic nerve was atrophied. He complained of nocturnal headaches. Six months previous to his first visit his hair commenced to fall out, and he had sore throat. He denies all knowledge of syphilis, and claims never to have had an eruption of any kind. On examination inguinal and cervical glands were enlarged, and a syphilitic ulcer was found on the leg. The tibia was painful on pressure. No signs of initial lesion were discovered.

Diagnosis.—Gumma of orbit pressing on optic nerve and vessels.

Mixed treatment was instituted, pushing the iodide in hopes of preventing a complete degeneration of the optic nerve. After three weeks' of treatment—headache better, appetite good, and he now feels the eyelid moving over the cornea. The vessels are now normal; the exophthalmia is much less; the tumor is sensibly melting away. By July 1 the eye resumed its normal position. There was a small ulcer of the cornea, which disappeared under treatment with hot water and atropine. The sight has not returned. The nerve is in the same condition of atrophy as at the beginning of the treatment. The patient does not know the exact period when his sight became lost in the right eye, but states his vision was good before the time when his hair began to fall out. His business did not require accurate vision—if it had, he would have made the discovery earlier. Had the

patient been placed under proper treatment when the vision first began to fail, it might have been restored. But, under the circumstances, the result of treatment is good.

DR. E. MAYER inquired if there were any evidences of syphilis in the throat? Also, if the initial lesion had existed on the lip or tongue?

DR. E. L. COCKS replied there had been mucus patches in the mouth, but no evidence of the initial lesion.

DR. R. VAN SANTVOORD stated that this case illustrated the fact so often noted, that while the growths due to syphilis can be removed by proper treatment, the injury done to the nervous structure by these masses cannot be so easily remedied.

DR. G. H. COCKS thought the destruction of utility of the optic nerve was due to pressure. He spoke of two cases of gumma of the iris, coming under his observation, which yielded to treatment, so far as the gumma was concerned; but the result was immovable.

DR. E. FRIDENBERG called attention to the fact that the principal point of interest was that the gumma was located in the orbit as well as its large size. This condition is rare. That the cornea is clear is a good result. Another interesting point is that the patient was not aware of his loss of vision. Frequently patients have imperfect vision, or, perhaps, no vision in one eye, and are made aware of it only by some accident. A case came under his notice recently where the patient had been assaulted and the eye injured. He came to New York for expert examination before beginning a suit for damages for loss of eyesight. Examination proved that the lens was dislocated, and there were other signs of long standing lesions certainly antedating the injury.

DR. C. B. MEDING suggested the possibility of specific local neuritis of the optic nerve, independent of the pressure caused by the gumma. He believed it possible for the nerve to recover after the pressure, as all nerves are possessed of great vitality.

DR. E. L. COCKS thought it strange that one particular nerve should become the seat of neuritis, while the other nerves of the orbit escaped.

DR. E. FRIDENBERG said the suggestion of Dr. Meding had engaged the attention of oculists, because it was well known that neuritis was often the result of small tumors seated in the brain. However, he did not think the case under consideration required that explanation.

DR. W. F. MARTIN presented photographs illustrating the following case: A boy, sixteen years, first came under his treatment in June, 1890, suffering from alopecia areata over a considerable space. Galvanism was employed three times a week for six weeks, with no improvement. Small fly-blisters were then employed, three at a time, to remove the epidermis. The electrodes were now dipped into a bichlor. sol. 1-3000, and galvanism employed. From time to time the position of the blisters was changed, but were kept near the center of the denuded area. After ten days, a very fine growth of hair began to appear, but only where the blisters had been situated. This growth gradually became more marked and abundant. In three months the case was entirely cured. It is remarkable that in ordinary cases the hair begins to grow from the periphery, but in this case it began in the center, which was probably due to the treatment.

DR. E. L. COCKS had seen a case in Dr. Buckley's clinic, which had existed five months. The patient went to bed suffering from a headache, and, on rising

in the morning, found two bald spots on the scalp, which were also anæsthetic. Carbolic washes had been used, and the hair had appeared on one spot but not on the other.

DR. MEDING called attention to the fact that one theory of the cause of alopecia was that it was due to the accumulation of dandruff. It was commonly known that solutions of the bichloride of mercury were useful in this condition. Perhaps the solution had more to do with the cure of Dr. Martin's case than the galvanism.

DR. KINCKERBOCKER inquired of Dr. Martin how he explained the fact that the hair came back over the whole surface, whereas the bichloride solution had only been applied to limited areas?

DR. MARTIN had no explanation to offer. He only knew that the hair commenced to grow only on the surfaces denuded by the blisters, and then gradually spread.

DR. G. H. COCKS presented to the association a patient, twenty-six years old, a fireman on the elevated railroad. On November 15, last, while at his work, he noticed a very peculiar numb feeling extending over his entire left side. This feeling lasted only a very few minutes. One week later, while working on his engine, he felt a severe pain in his left eye, as if a coal or spark had entered it. The muscles of the jaw became contracted, and he fell forward, unconscious, on the boiler, receiving superficial burns on the wrists of both hands. The engineer did not notice any convulsions or frothing of the mouth. He was unconscious about half an hour. The important question is as to diagnosis, and if these attacks are likely to recur. He is in line of promotion, but does not feel disposed to become an engineer if these attacks are to be repeated. Except for the two attacks mentioned above, he has never been ill, that he can remember.

DR. VAN SANTVOORD was inclined to consider the case one of epilepsy, having the usual aura and loss of consciousness. There may have been convulsive movements present, although these were not recognized at the time.

DR. MAYER thought best to leave the diagnosis open to see if there is a return of the attacks. In the meantime, he did not consider it proper for the patient to assume a perilous position.

DR. MALLESON inquired if the urine had been examined.

DR. COCKS replied that he regretted that he had not examined it. He had carefully examined the heart, and found it normal.

DR. VAN SANTVOORD had a case of convulsions, occurring in a woman suffering from albuminuria of pregnancy. The albumen was not found just before or immediately after the attack; it appeared some twenty-four hours after the convulsive attack.

DR. FRIDENBERG believed it impossible to make a positive diagnosis in the case under consideration at the present time. We must wait until the case develops. It is possible for an attack of this character to be due to some peripheral irritation. He related the instance of his brother, a young man, twenty-three years old, who had two attacks of loss of consciousness, with some convulsive movements, lasting a few minutes. Vomiting followed. These seizures were due to the eruption of a wisdom tooth.

ALWAYS direct a mixture containing a soluble salt of mercury to be taken from a glass or porcelain spoon, as the mercury will amalgamate the silver, and spoil both.

The Polyclinic.

JEFFERSON MEDICAL COLLEGE.

[Reported by J. L. TAYLOR, M.D.]

DR. STELWAGON in treating a case of acne rosacea at the hospital clinic, advised the patient to take internally, saline laxatives, tonics and ergot, and locally, sulphur in the form of

R.—Binii sulphat,
Potassii sulphuret.....āā f3ij.
Aquæq. s. f3iv.

M.—S. To be rubbed in thoroughly, and to remove the enlarged blood-vessels upon the patient's nose.

Dr. Stelwagon recommended slitting across their calibre with a knife, or obliterating by puncturing, or electrolysis.

In a case of epilepsy occurring in a boy aged eleven years, with the history of having had convulsions when eight months old, the attacks coming on at intervals since, until he had two and three attacks a day; he was placed on this treatment, viz.:

R.—Sodii iodidi..... gr. v.
Sodii bromidi gr. x.
Potassii bromidi..... gr. v.
Tr. gentianæ comp.,
Elix. simplicis.....āā f3ss.

M.—S. ter die.

For a boy, aged seven years, with incomplete use of his tongue, Dr. Cohen ordered him the following prescription:

R.—Strychninæ sulph..... gr. j.
Aquæ..... f3j.

M.—S. m.v. ter die.

The following was prescribed in a case of catarrhal pneumonia occurring on both sides, viz.:

R.—Ammonii muriat..... gr. x.
Mist. glycyrrh. comp..... f3j.

M.—S. Every second hour.

And as the expectoration ceased the treatment was changed to:

R.—Ammonii carb..... gr. v.
Syr. tolu.....q. s. ad. f3j.

M.—S. Every three hours.

In a case of eczema erythematousum treated at the Jefferson skin clinic, Dr. Stelwagon gave the following prescription:

R.—Picis liquidæ..... f3j.
Ung. simplicis.....q. s. f3j.

M.—S. To be thoroughly rubbed in.

For irritability of the bladder, especially that occurring in old persons, Prof. Brinton gave the class the following prescription:

R.—Uvæ ursi..... f3j.
Lupulini..... f3ss.
Aquæ bul..... Oj.

M.—Et adde.

Sodii bicarb..... f3ij.
Tr. opii acetat..... f3j.

S. f3ss. ter die.

The following was recommended in case of chronic pericarditis, with adhesions, in a boy of thirteen years:

R.—Potassii iodidi..... gr. v.
Morphinæ sulph..... gr. ʒss.
Tr. digitalis..... m.v.

M.—S. Four times daily.

And

R.—Potassii acetatis..... f3ss.

S. Four times a day.

Prof. Keen, in lecturing to the class on venereal diseases, gave the following differential diagnosis between chancre and chancroid, viz.:

CHANCRE.	CHANCROID.
1. Is constitutional.	1. Local.
2. Incubation ten to ninety days.	2. Four to five days.
3. Begins as a papule, slowly becoming an ulcer.	3. Begins as a pustule, rapidly ulcerates.
4. Is single.	4. More commonly multiple.
5. Is round.	5. Is irregular.
6. Edges hard, thickened and sloping.	6. Undermined; no new growth.
7. Thin, scanty, watery discharge.	7. Profuse, thick pus.
8. Indurated base.	8. No induration.
9. Not painful.	9. Is very painful.
10. Not autoinoculable.	10. Is autoinoculable.
11. Slight inflammation.	11. Severe inflammation.
12. A non-suppurating bubo in 99 per cent. of cases.	12. Suppurating bubo in 50 per cent. of cases.
13. Secondaries in six weeks.	13. No secondaries.
14. Fading indurated cicatrix.	14. Remaining cicatrix, not indurated.
15. Constitutional treatment under which the chancre frequently disappears.	15. Chancroid does not disappear under constitutional treatment.

In a case of *angina pectoris*, with fibroid change of the liver, in a man aged forty years, with the following history: Severe pain in the præcordial region, attacks lasting five to ten minutes, occurring twice weekly, palpitation, jaundice, constipation, urine normal, patient having a malarial history, the following was ordered:

R.—Sodii phosphat. fʒj.
 Cardamom. seminis gr. v.
 Aquæ bullient q. s. Oij.
 M.—S. A wineglassful ter die.
 R.—Liq. potassii arsenit. gtt. iij-v.
 Nitro-glycerine (1 per cent. solu.) . gtt. j.
 M.—S. Ter die, to be increased.

In a case of *mitral disease* with *pleural effusion*, with a history of having had rheumatism twice, the following was prescribed:

R.—Potassii iodidi. gr. x.
 Potass. acetatis. ʒj.
 Tr. digitalis gr. v.
 Morphine sulph. gr. ʒss.
 Syr. zingiberis,
 Aquæ āā q. s. fʒj.
 M.—Sig. Every third hour.

A man, aged forty years, suffering from *hereditary chorea*, in whom the movements were irregular, and very much exaggerated, was ordered:

R.—Hydrobromate of hyoscyamine ... gr. $\frac{1}{200}$.
 S. Ter die.

At a recent clinic, the patient was again presented to the class, practically cured, having been on this treatment about one month.

In a case of *diabetes insipidus*, occurring in a woman aged forty-nine years, presenting this history: For the past three or four months has had flushing of the face, palpitation, vertigo, no cough or œdema; has been passing large amounts of urine of a specific gravity of 1.001, containing no albumin or sugar; has acid indigestion and constipation; this treatment was prescribed:

R.—Aloin. gr. ʒ.
 Ext. belladon. gr. ʒss.
 Sodii bi-carb. gr. ij.
 M.—Ft. in pil. No. i.
 Sig. Take morning and night.

R.—Antipyrin. gr. x.
 Sig. Ter die.

R.—Tr. aconiti. gtt. iij.
 Sig. At night.

The professor, in speaking of this case, said: Although he regarded ergot by far the better remedy in this disease, he would in this case, owing to the rapidity of the heart's action, prefer antipyrin.

The professor, in speaking to the class on the treatment of *diphtheria*, said that there were three points to be remembered in its treatment, namely, *disinfection*, *alimentation*, and *stimulation*.

PHILADELPHIA HOSPITAL.

PEROXIDE OF HYDROGEN.

THIS is an antiseptic that is coming more into use every day. In order to test its merits it has been tried in a series of cases in the wards of the Philadelphia Hospital, with almost uniformly excellent results. It is nearly odorless, and is painless, and absolutely non-irritating. The peroxide must be fresh, and of good quality, however, as it rapidly deteriorates by standing. The peroxide of hydrogen made by Merck was used in most of the cases.

It is most conveniently used by means of an atomizer with a rubber tube, spraying the parts once or twice daily, and using gauze saturated in a 20 per cent. solution of the peroxide, or olive oil, as a dressing.

In a number of cases the bichloride of mercury 1-2000, as well as a carbolic acid 1-40, had previously been tried, thus affording an opportunity to compare their virtues with the peroxide.

The cases taken comprised a number of old chronic leg ulcers, buboes, sinuses, abscesses, and also some recent wounds.

None of the cases were considered cured until the wound had completely healed.

The results obtained were in the main very satisfactory, and though in a few cases it was unproductive of benefit, it should be remembered that these were the most intractable cases, and that where the peroxide failed, the bichloride of mercury and carbolic acid had been used without success. The most gratifying results were obtained in the treatment of buboes.

In these case some of the most astonishing results were recorded.

In one case of a laboring man, who was suffering with a bubo of two years' standing, and which obstinately resisted treatment, the peroxide was used for the first time on November 3, 1890. The sore almost immediately assumed a healthy appearance, and he was discharged December 8, 1890, with the sore completely healed.

Another case of chancroidal bubo, which was admitted October 16, 1890, bid fair to be an obstinate case. It was large, indurated and channeled with several sinuses some inches in depth. It was dressed with the iodoform pack, and washed daily with bichloride of mercury 1-2000 until November 3, 1890, without much improvement. The treatment was then changed to the peroxide, throwing the solution by means of the atomizer as well into the sinuses as possible. He was discharged completely cured November 26, 1890.

The buboes selected were all typical cases, such as were treated in the daily routine of ward work, and originating from chancroids, gonorrhœa, and strains. The number of buboes in which it was tried was fifteen, and in every case, except one, a most rapid cure was the result. In this case the peroxide seemed, for

some unknown cause, to do no good whatever. This case slowly recovered under the usual antiseptic dressing of Hg Cl₂ and iodoform.

A dozen leg ulcers were treated, with the peroxide, which had been in existence periods ranging from a few years to twenty-five. In some of these cases (two) the ulcers did not improve; in one, growing larger and deeper. In about half the cases the ulcers slowly improved, secreting less pus and having a more healthy appearance. In the rest of the cases the ulcers progressed more rapidly to a cure.

In one of these cases, that of an old woman with hemiplegia and aphasia, there were two ulcers on the paralyzed leg, irregular in shape, and about three inches long by two wide. These slowly improved under the peroxide for three weeks, when the healing process seemed suddenly to receive new vigor and the ulcers healed within a week. The sores had existed some twenty years. In every case of recent wound in which the peroxide was used as the antiseptic it healed without any formation of pus.

In an old sinus resulting from a facial abscess, and which was about four inches in depth, the fourth application of the peroxide arrested the suppurating process and the sinus healed very kindly.

In an abscess of the face, resulting from erysipelas, and from which f3ss of pus was obtained by incision, the peroxide was injected with a glass syringe into the cavity. The notes of the case show that the next day there was a slight amount of pus present, on the day following none, and on the two following days the abscess healed without even leaving a scar at the point of incision.

In an abscess of the scalp, resulting from an incised and contused wound, the bichloride of mercury 1-2000 was used without checking the formation of pus. Carbolic acid was then used 1-40 with like results. The peroxide of hydrogen was then tried, and after three daily applications not a vestige of pus could be seen. These three antiseptic solutions were used in exactly similar ways. This abscess was cured in eight days.

In one case of syphilitic rupia, in which the system would not bear mercury, the patient was put on a tonic treatment, and a stimulant mercurial ointment applied locally. This ointment doing little good, the peroxide was used in its stead, after removing the crusts with a starch poultice. The sores rapidly healed under this treatment, and the case is progressing toward a cure.

The cases in which the peroxide was used numbered about forty, and the results attained were as good, and, indeed, in some cases better than by bichloride of mercury.

In but three cases did it give pain, and in these cases it was applied to recently denuded surfaces.

In the cases of buboes the average time taken for a cure was from three to four weeks, when treated with the peroxide.

In an equal number of cases preceding these, which were treated with bichloride 1-2000 and iodoform pack, the average time was six weeks.

In two cases of gonorrhoea in which it was tried, it accomplished no good whatever; the disease running the usual course.

From the experience gained in the use of the peroxide of hydrogen in this limited number of cases it would seem that it deserves to rank among our best and most useful antiseptics, and worthy of a more extended trial.—*Buck.*

MEDICO-CHIRURGICAL HOSPITAL.

EPITHELIOMA OF THE FACE.

THIS patient, an aged lady, was referred by Prof. Goodman for operation for an epithelial cancer in the left molar region. The growth, about the size of a hickory nut, was entirely removed by electrolysis, without the use of an anæsthetic. The site of the tumor was also well acted upon by means of Dr. Walling's especial carbon electrodes.

POLITZERIZATION.—Dr. H. MacNaughton Jones, writing in the *Medical Press and Circular* on inflation of the tympanum gives the following hints as to Politzer's method of treatment:

1. Let the patient be seated—at times patients become slightly giddy on inflation of the tympanum.
2. Make the patient swallow some sips of water in rapid succession, or pronounce, through the nose, the vowel "o" a few times—this assists in opening the Eustachian tube, and is a form of "gymnastics" of the palatal muscles.
3. Incline the head to either side—inflate through the nostrils opposite to the side to which the head is inclined.
4. Direct the current horizontally.
5. Experimentally ascertain whether any form of nasal phonation or the act of deglutition best dilates the aperture of the Eustachian tube. Adopt this method with the individual case.
6. After Politzerization make the patient again swallow several sips of water.
7. With children, phonation is the best act to take advantage of; we can, as a rule, inflate when the child cries; with the auto-inflating bag there is seldom any difficulty—children quickly learn to inflate the middle-ear.

Finally, let me enumerate the conditions in which the method of Politzer will be found of the greatest assistance in treatment.

1. In temporary collapse or closure of the Eustachian tube from catarrh of the naso-pharynx.
2. In collapse of the Eustachian tube from enervated states of the tubal muscles.
3. In chronic catarrhal conditions of the naso-pharynx and attendant chronic catarrhal conditions of the tympanum.
4. After intra-tympanic alkaline injections or douchings of the Eustachian tube.
5. After the use of the Eustachian catheter or bougie.
6. In chronic perforation of the membrana tympani, after cleansing of the middle ear, and before applying an artificial membrane.
7. After removal of impacted cerumen.
8. For cases of tinnitus dependent upon abnormal states of the middle-ear.
9. For similar cases attended by vertigo.
10. For temporary deafness which attends on sea-bathing or diving.
11. In cases of deafness dependent upon obstructed nasal respiration.
12. In collapse of the membrana tympani.
13. In those cases of "progressive deafness" in which there is some degree of fixation or rigidity of the ossicles.

"Do you consider eight hours of sleep a necessity over in your town?" asked the New Yorker. "Well, we don't put it that way. Our doctors recommend at least twelve hours of wakefulness every day," returned the Philadelphia man.—*Munseys.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Jan. 3, 1891.

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THE EXAMINERS' BILL.

ANOTHER attempt will be made during the coming session of the Pennsylvania Legislature to procure the passage of an act creating a Board of Medical Examiners. The proposed bill is printed in full in another column. It will be found to differ in some important respects from the one presented two years ago. The present bill places the appointment of members entirely in the hands of the Governor; the only restrictions to his choice being those relating to legality and date of graduation, and freedom from alliances with medical colleges. A new clause provides that no two of the nine examiners shall be residents in the same county. This opens the field to the country members, and cuts Philadelphia, with her 2,000 physicians out of 8,000 in the State, down to a single representative. But there is no dearth of good material for this Board to be found in the country; and the provision is commendable in that it prevents too much influence being exerted by the city cliques. The only references made to the special schools are those in which their rights are asserted, and the candidate is allowed the privilege of selecting the system of materia medica and therapeutics in which he is to be examined. The Governor is free to place as many of the advocates of these schools on the Board as he sees fit.

The only serious defect we have noted in the bill is that it does not state whether midwives do or do not come under its provisions. There is no reason why the same supervision should not be exercised over practitioners in this important branch of the medical art, as over those who occupy the wider fields; and while the services of midwives are not nearly so valuable as those of educated physicians, it would be going too far to practically wipe out the former by subjecting them to the same examination as the latter.

This is a matter which can easily be remedied; and an amendment will probably be made, defining the

status of midwives, before the bill comes up for final action.

It is earnestly to be hoped that the Legislature will awake to the needs of the medical profession in the State, and take some action towards the preservation of that pre-eminence in medical teaching that the Pennsylvania schools have held until recently. For over a century Pennsylvania was looked upon as the Mecca of American medicine; and it is our belief that even yet there is nowhere to be found a more highly cultured and skilful body of physicians than those of Philadelphia. But this superiority is certainly not what it was twenty years ago; for a number of reasons, chief among which are the following: New York has put her boundless energy into the building up of her medical colleges, and she has also put her money into them by hundreds of thousands. The magnificent laboratories connected with her schools, the ample accommodations for classes, etc., etc., added to the numerous attractions of the great metropolis, have diverted many students from Philadelphia. But the worst difficulty is that we cannot even keep our own students in the State. Every effort that is made by the Pennsylvania colleges to raise the grade of instruction is the signal for our students to slip out of the State in search of colleges whose requirements are easier. A chain of such institutions, having no entrance examinations, two-year courses, low fees, and little instruction besides lectures, with easy examinations for graduation, surrounds us on every side. Every time the reins are tightened here, the colleges of Baltimore, Cincinnati, Louisville, Columbus, Cleveland, Buffalo, New York or Brooklyn receive an accession to their classes of Pennsylvania students.

With the best will in the world, no college can elevate the standard of medical education unless the student will stay to be educated. High-class teaching becomes impossible unless there are pupils to be taught.

The Registry Law is almost a total failure. Nominally, it enables the State colleges to control the State students, by compelling foreign graduates to come to our colleges for endorsement. But in most of the counties the prothonotaries have totally ignored the law, and have registered anything said to be a diploma, regardless of the endorsement required by the act.

One glaring instance of this neglect may suffice: A student had attended the College of Pharmacy for years, and, being unable to pass the examinations, transferred his allegiance to Jefferson Medical College, where he furnished amusement for the students for several terms. Despairing of success here, he applied to the Medico-Chirurgical College, where he was promptly rejected at the matriculation examination. With a perseverance worthy of a better cause, he repaired to Baltimore, and the following spring returned with a diploma. Three times he endeavored to pass the examination for endorsement, and failed completely. However, it did not matter much to him, as he found a prothonotary who registered him without endorsement; and now this man, whose intelligence

is little above the grade of an idiot, is practising the art of medicine upon the citizens of this State.

While the proper enforcement of the Registry Act would do much good, there would be much greater benefit from an independent Examining Board, to which all the State colleges would send their graduates, as well as those coming from colleges outside the State. Students would be quick to see that the more severe the requirements of the colleges, the greater their own chances of passing the State Board. Many improvements could be made in the present methods of teaching that are now inadvisable. With the strong support of such a State Board in their reforms, the Pennsylvania colleges could do a great deal towards restoring the supremacy of this city in medical teaching. Without the spring of necessity, the fear of examinations on the part of the student is so great that no considerations of superior fitness for his duties as a physician will induce him to face any ordeal he can in any way avoid.

"LEGALIZED PRIZE-FIGHTING."

THAT the *Lancet*, the principal medical paper of the world, should devote a certain amount of space in each issue published during the foot-ball season to the disasters incident to that game, is a fact not without its due significance in the sporting world, and one to which we can afford to give due weight. And the journal in this country that should start a column entitled "Foot-ball Casualties" would find no lack of material whereon to feed its readers. Fractures and dislocations, cases of collision in which one or both the colliding bodies had the breath knocked out of it, accounts innumerable of bloodshed and permanent injury could readily be found to lend themselves to the list of horrors.

When these remarks were projected we were asked to say something in commendation of those colleges which, for fear that the game would be prohibited altogether, have set their faces against the practice of "slugging." Such a request as that seems, after some consideration, both surprising and absurd. To commend men for putting a truth or an idea on its right basis is not necessary any more than it is desirable. What all true lovers of manly sports should do is to condemn the spirit which has allowed so noble a game to sink to the level of mere brutality. No, we shall bestow no such commendation; we shall let whatever virtue there is in it be its own reward. Our endeavor will be to show some of the evils of the present system, in the hope of assisting any efforts, if such are likely to be made, to give foot-ball its true place in the list of sports as a scientific pastime of a very high order.

We are accustomed to hear a great cry raised against the use of spirituous liquors, as being a curse to individuals and a disgrace to a nation. And why? Simply because of the evil results to the individual and to society. Not that alone, but because no one member can afford to be mastered by his passions without the whole body social suffering. And if it be so in one thing, is it not so in all? The national game which becomes an outlet for the indulgence of danger-

ous passions has, of course, forfeited its claim to a place among manly sports, and can only be relegated to the rank of such brutalities as dueling and prize-fighting—sports, be it observed, which are under the ban of the law. The recent Yale-Princeton game drew together some 40,000 people to New York City, many of them young people whose passions are not apt to be under the best of control at any time, and who were no doubt largely attracted by the hope of witnessing a "slugging match." And the game was a very gentle one, was it?—not more than half-a-dozen being injured; events which doubtless gave as much satisfaction to the spectators as so many touch-downs. Such gentleness reminds us of the man who said he "never licked his wife—only switched her about the head occasionally with a stick of wood." As to the Pennsylvania-Princeton game, the heart of the staunchest foot-ball advocate recoils in horror at the mention of it, and all who witnessed it

"Hushed their very hearts that saw its horror and amaze."

And yet there is no talk of ruling out either side as brutes not fit for the society of decent people. If the University of Pennsylvania did bloody work, it is not alone in such deeds. If it did the most, all have done much in that way. Verily, if "David hath slain his ten thousands," Saul is also to be credited with "his thousands."

And yet, let no reader imagine that THE TIMES AND REGISTER is opposed to free-fighting, or that the humblest of its editorial staff has a soul which does not rise up and rejoice when the trumpet sounds the call to battle. If foot-ball contests are going to degenerate into fights let us, at least, be honest in advertising them as such. Let the next year's challenges read thus: "The — slugging team of — College invites the slugging team of — College to an exhibition of brutality on — day, at —, at 2.30 P. M. Members are requested to leave their gloves, and would do well to leave their noses, at home. A staff of physicians representing THE TIMES AND REGISTER will be in constant attendance. Undertakers' fees at a liberal discount. N. B.—A foot-ball will be in attendance for the members to rub their hands on occasionally."

In the present condition of affairs that is about the interpretation of a foot-ball challenge.

If, in what we have said, we have seemed to cast any slurs on foot-ball as a game, our readers must blame themselves for their obtuseness. It possesses many elements which make it one of the noblest of our sports and one well worth watching when its best side is brought out. Skill, intelligence of a very high order, speed, endurance, these are qualities which it used to have before mere animalism became the foremost qualification for its players. In former times it was not a melee nor a scrimmage, but a contest in which brain was pitted against brain, infist against nose, and boot-toe against stomach-pit. It is the duty of all who love this noble sport, to strive earnestly for its restoration to its pristine nobility.

And finally, what is the future of a people whose colleges are filled with students whose all-absorbing

thought is "to get on the nine" or to "play on the foot-ball team," and who look upon the "half-back" as the real honor man, although he may have been induced to come to the college on account of his abilities as a foot-ball player and be in no other sense a credit to the institution. Shall we ever learn in this democracy of ours that to be intellectual men, in the highest sense, is a worthier ambition than to be good "rushers," or "crack oarsmen," or "curve pitchers." Philadelphia, which cannot support a public library on a free basis, may she not well claim a pride in the best set of "sluggers in the country?" The men of the future will have to decide whether they prefer the inheritance of a predominant animal nature, which shall swallow up the intellectual, or the fair name of poets and philosophers, scholars and scientists, on the roll of her honored sons. Shall the epitaph of the future be: "Here lies the champion slugger of the United States. What shall be done to the man whom the king delighteth to honor?" Or shall we read "Underneath this stone lies the body of a poet whose words made glad the hearts of all men. His words are heard unto the ends of the earth?" May we not jeopard their chances of intellectual vitality, by giving too much prominence to so unimportant a subject as foot-ball?

PROMOTION BY SENIORITY.

IN the appointment of Dr. Charles Sutherland as Surgeon-General of the Army Medical corps, President Harrison has again demonstrated his good judgment. Every member of this corps is a picked man, having passed an entrance examination that not one in twenty of the recent graduates of our medical colleges could succeed in without special additional instruction; and the vast majority could not pass it under any circumstances. As the routine of service renders the surgeons familiar with the requirements of their various grades, it may be safely assumed that each one is fully competent to perform the duties of his rank, except under very exceptional circumstances. There is, we need not inform our readers, a wide difference between active service in the field and department duty in Washington; and the theory is that each surgeon is to get his turn at the hard work and at the easy. Every attempt of the "Coburger" to employ personal or political influence, and thereby usurp the good things that rightfully belong to his comrade, tends to loosen the bonds of discipline and destroy that confidence in one's comrades which constitutes the cohesion of an army. How often has disaster been precipitated by the cry, "We are betrayed!" Whenever a man asks for promotion out of turn, he asks for a thing he knows to be destructive to discipline, and thereby demonstrates his own unfitness for promotion. In the line, in war time, great military genius must necessarily be recognized, and such promotions made as the good of the service demands. But in the staff corps, in times of peace, where every man in each grade is fully competent to perform the duties of the next higher when his turn for promotion comes, no such necessity can exist, except in the case of special dis-

ability. Indeed, it will generally be found that when claims are put forward for promotion out of turn, the aspirant has had a large share of headquarters work, and opportunities for newspaper notoriety; while the men whom he seeks to overleap are those who have gone steadily forward with their work, without making any fuss over it, and hence have attracted no public attention.

Such has been the career of Dr. Sutherland. Entering the army in 1852, his record is one of faithful service in every position to which he has been assigned. His fine record during the rebellion won him brevets of Lieutenant-Colonel and Colonel. He has not supervised the compilation of a dictionary; spent his whole term of service in soft billets at Washington; won foreign honors by slandering his countrymen; insulted an International Medical Congress; or built a hospital¹ with such reckless extravagance as to cripple its usefulness forever. These things, however, are not generally considered essential qualifications for the office of Surgeon-General.

Annotations.

WARMTH IN DWELLING HOUSES.

THE vexed problem of how to have just the *right* heat in a house, is one by which every one of us is troubled. Economy of coal and need for fresh air enter into the problem, sometimes much to its entanglement. One or two suggestions, drawn from a practical apprenticeship in the care of fires, may not come amiss in a mid-winter number.

Don't have a cold cellar, and then wonder why the rooms on your first floor are cold.

Don't get the idea into your head that you can't have heat and fresh air at the same time.

Don't (above all things) warm one part of the house at the expense of the rest. If your halls and entries are thoroughly warm you will find your parlor and office warm, although they have very little heat coming into them from the furnace.

Don't waste coal; and don't stint it. Study your fire intelligently. It takes just as much thought and care to heat your house as it does to manage your business, and it is just as well worth doing intelligently. Most furnaces are left to the care of careless, ignorant servants, whose one idea is to pile on coal, then pile on coal, and, after that, pile on coal.

A DOCTOR writes: I circumcised a little fellow six years of age the other day, and when he recovered from the anæsthetic he remarked: "That is the meanest thing one fellow ever did to another."

¹ The heating apparatus alone of a hospital recently erected in a neighboring city is said to have cost \$250,000. The hospital can accommodate one hundred and twenty patients. A Philadelphia hospital, now being built, to contain the same number of beds, will cost, when complete—including ground, building, and equipment—one-half the cost of this heating apparatus, or \$125,000. And yet the Philadelphia hospital will contain every essential for the benefit of the patients which can be found in the more expensive structure.

Letters to the Editor.

AN ENGLISH VIEW OF THE NEW JERSEY LAW.

AFTER perusing "The New Jersey Law" in your number of October 4, I cannot refrain from regarding it as a most selfish and inconsistent measure, which before long will so re-act as to require withdrawal.

Some years since I had the curiosity to reply to an advertisement, "Degrees in absentia!" It was not from want of, or intention of purchasing, as I then had those of M.D., F.R.C.S.

By an early post I received information that by payment of the requisite fees I could obtain an M.D., LL.D., M.A., or B.D. from the "Livingston University," Haddonfield, *New Jersey*.

Possibly it is to make amend for such laxity that the new Medical Bill has been passed in the State Council.

I see no clause in the act that will allow any distinguished doctor to practice without examination, and will give but two examples of the way in which the same law may act in a manner not only detrimental to the State practitioners, but to the Commonwealth.

New Jersey establishes an university (presuming "Livingstone is defunct"). Professors from leading universities are invited to fill the chairs. They decline to pass the State examination (very properly). The law, as it exists, cannot allow them to take their respective chairs.

A New Jersey doctor wishes to dispose of his practice, house, land, etc., in order to go to Florida, that he may take advantage of the semi-tropical climate. Florida refuses him the privilege of practice, as no reciprocity of medical bills has been entered upon. I, a surgeon, am willing to give cash—say £4,000—for the practice, etc., etc., but find an examination is required. I decline the examination, being sufficiently well qualified, take my money, and look for a practice in a State gifted with more liberal views. Possibly the doctor who desired to effect the sale was one who assisted the passage of the bill. Picture his chagrin as I depart with the £4,000.

I will offer the following suggestion for the consideration of all State medical boards in America, and I believe the more practical minds will perceive consistency in my remarks, as by one great lesson the medical standard of the United States will be confirmed.

1. No person commencing the study of medicine on or after January 1, 1891, shall be allowed to practice in this State unless his degree be from a college enforcing a four years' course of study, comprising six months' winter and three months' session of lectures and clinical studies at such college. Also, an efficient matriculation shall be passed at any time before the granting of such doctor's degree. And for those who commence the study of medicine *on and after* four years from the above stated date, a matriculation examination certificate, or a degree in arts and sciences must be passed *before* the commencement of such medical studies, and only certificates of medical lectures showing attendance *subsequent* to such examination shall be regarded as valid.

2. Any degree or diploma bearing date prior to January 1, 1891, shall, if in the opinion of the members of the State Board of Examiners, be regarded as of reputable standing, and the holder adduce proofs

of respectability, be registered on payment of a fee of \$—.

3. Students who began their studies prior to January 1, 1891, but obtained their degrees prior to the expiration of the four years aforesaid, shall receive such consideration as the Board may think fit, and receive a permit to practice without examination; or, if examined, the same to be in medicine, surgery, and obstetrics.

That places the whole subject in the smallest possible compass, and at once "kills" the two-session medical college. In fact, practice forces every college to our standard, *i. e.*, a graduated, four years' course; and, consequently, a reciprocity in medical degrees can exist between all the States in the Union.

If one State desires to outstand against the wish of the other, in a short time it must enter the list, as every student will perceive the ultimate disadvantage of securing a diploma that would restrict his field of action.

The one standard in America will tend to hasten the Act of Reciprocity between all civilized nations—when an American can practice in any European country he may desire, and *vice versa*.

"SURGEON."

JAMAICA, W. I.

Book Notices.

THE PHYSICIAN'S ALL-REQUISITE TIME AND LABOR-SAVING ACCOUNT-BOOK: Being a Ledger and Account-Book for Physicians' Use, meeting all the requirements of the Law and Courts. Price, for 900 accounts, \$5.00, delivered in United States. For 1,800 accounts, \$8.00. F. A. Davis, Publisher, Philadelphia, Pa.

One of the good resolutions due about this season is that greater care shall be taken in keeping the accounts in future. The system in the book before us is easy, and the book itself inexpensive.

POST-MORTEM. What to Look For and How to Make Them. By A. H. NEWTH, London. Edited with numerous notes and additions by F. W. Owen, M.D., formerly Demonstrator of Anatomy, Detroit College of Medicine. Cloth, 12mo.; postpaid, \$1.00. *The Illustrated Medical Journal Co.*, publishers, Detroit, Mich.

This book is replete with information that every person interested in necroscopy should have at easy command. To the country physician, who makes autopsies infrequently, it is especially valuable. It is the only brief work of the kind now at command. The book will be sent postpaid upon receipt of price by its publishers.

THE PATIENT'S RECORD—for the use of Physicians and Nurses. Compiled by AGNES S. BRENNAN. New York: G. P. Putnam's Sons, 27 West Twenty-third street. 1890.

On each page are ruled spaces for a daily record of date, time, temperature, pulse, respirations, medicine, food, stimulants, remarks, and urine; while a fly-leaf is inserted for the doctor's orders. Thus, a concise record of the day may be entered, with very little trouble, on a single line; or more space may be taken if necessary. There are ninety-nine leaves, each ruled for thirty days. In the back are twelve removable temperature charts; while a loop for pencil completes this modest but admirable book for the easy and concise recording of cases. This task, which is so necessary and yet so onerous to the busy doctor, is facilitated so much by this book that it is simply a necessity to any one who has once seen it.

TUBERCULOSIS, OR PULMONARY CONSUMPTION; its Prophylaxis and Cure by Suralimentation of Liquid Food. By W. H. BURT, M.D. Chicago: W. T. Keener. 1890.

The author of this book has caused to be printed on the reverse of the title page of his book the words "All rights reserved." Despite this reservation on his part we take the liberty of writing a short notice of his book in order that such wonderful discoveries as are herein given to the world may not fail of our recognition. Poor Prof. Koch! we had dreamed that he had "awakened to find himself famous," and here is this oracle of the age saying on p. 14, concerning the learned professor's theory on bacillus: "This beautiful, but impractical theory, I have tried hard to accept, but, I am sorry to say, I cannot accept it. To me, no more silly and unscientific craze has ever found a foot hold in scientific pathological medicine than the bacillus theory, and I predict, that in ten years from to-day, the great majority of physicians that accept it now, will have discarded it as a delusion." "He that hath ears to hear let him hear!"

Dr. Burt's own panacea for tuberculosis is water, "water, water, everywhere." The patient who fails to get well by simply reading the list of fluids on pp. 89-90 is likely to be able to *take* them one after another without further damage than a sense of fullness and disgust. These fluids are no less than ninety-six in number, and Dr. Burt says sagely enough, "Many more can be added as the practitioner deems useful."

Here are a few of the curative beverages which he recommends, viz.: pure water, mineral water, water with tar, water with phosphoric acid, water with sugar, water with salt, aerated water, grape juice, beer, (ah, now we are getting down to work!) cider, lemonade, orangeade, milk, condensed milk, skimmed milk, buttermilk, "and so *ad infinitum*." We have preferred to copy a single column rather than quote at random. When we have taken all these ninety-six liquids, and as many more as the family physician can persuade us to absorb, we shall be ready for Dr. Burt's remedies, which cover ninety-one pages, and which are well calculated to destroy any germ, living or dead, which might have the hardness to show its head. Certainly the digestive organs, which have weathered the doctor's Niagara, will be in a condition to take any number of remedies which the worthy practitioner might feel called upon to administer.

Surely Professor Koch is as wise to give his attention to the study of bacteriology as the author of this book is to give his attention to quackery.

The Medical Digest.

THE HEKTOGRAPH.—For ink a concentrated solution of Paris violet is recommended. To remove old copy from pad, a little muriatic acid is added to the water. For a tin dish 7 by 11 inches use:

Glue	3 ounces.
Glycerine	15 "
Kaolin	$\frac{3}{4}$ "
Water.....	11 $\frac{1}{4}$ "

A LOCAL ANÆSTHETIC FORMULA.—An exchange says: Local anæsthesia is produced at one of the leading hospitals by means of a spray composed of ten parts of chloroform, fifteen parts of ether, and one part of methol. After one minute's application of this compound spray, complete anæsthesia of the skin and neighboring tissues is produced, and will

persist from two to six minutes. This suffices for some minor operations, such as opening an abscess of the cervical glands, incising a deep-seated whitlow, or excising an epithelioma of the nose, etc.

POISON-PROOF ANIMALS.—Neither differences of organization in animals, nor in the constitution of the poisonous substance generally, afford any clew for interpreting an exceptional want of effect. Unaccountable is the immunity of rabbits against belladonna leaves (*Atropa belladonna*, deadly nightshade). You may feed them with belladonna for weeks without observing the least toxic symptoms. The meat of such animals, however, proves poisonous to anyone who eats it, producing the same symptoms as the plant. Pigeons and various other herbivora are also to some degree safe from the effects of this poison, while in warm-blooded carnivora it causes paralysis and asphyxia. In frogs, the effect is a different one, consisting of spasms. The meat of goats which had fed on hemlock has sometimes occasioned poisonous effects. Chickens are nearly hardy against nux vomica and the extremely dangerous alkaloid, strychnine, contained in it, while in the smallest amount it is a fatal poison to rodents. More remarkable yet in this respect is the immunity of *Choloepeus Hoffmanni*, a kind of sloth, living on the island of Ceylon, which, when given ten grains of strychnine, was not much affected. Pigeons are possessed of high immunity from morphine, the chief alkaloid of opium, as well as from belladonna. Eight grains were required to kill a pigeon, not much less than the mortal dose for a man. Cats are extremely sensitive to foxglove (*Digitalis purpurea*), which on the contrary may be given to rabbits and various birds in pretty large doses.—Bernhardt, *The Popular Science Monthly*.

MODERN DIAGNOSIS OF DISEASE OF THE STOMACH.—The entire subject of the chemical processes, which are due to the action of the gastric juice, has undergone an immense development of late years, and we now know that these are due to the agency of a substance, pepsin, belonging to the class of ferments or enzymes. This pepsin, however, will not act except in the presence of a free acid, and the secretion of the stomach in health is always acid. On the nature of this acid much uncertainty prevailed for a long time, but the fundamental observation of C. Schmidt set the question at rest. He found that, supposing all the bases present to be combined with chlorine, there was still a large excess of HCl, and that this excess required for its neutralization just that quantity of alkali necessary to neutralize the gastric juice itself. Thus he proved not only that free HCl was present, but that it was the only acid present. No doubt HCl is, except in most exceptional cases, the only acid secreted, but we shall see that in every act of digestion other acids are present whose appearance, disappearance, and relative proportion to the HCl are objects of great importance in the investigation of the digestive act as performed in the human stomach.

The chemical changes effected by the gastric juice in the different food stuffs have been studied mainly by the method of artificial digestion. There is no difficulty in getting an extract of the mucous membrane of the stomach which shall contain pepsin in greater or less purity, and which, when made suitably acid by HCl, shall dissolve and change, or, as it is said, digest proteid substances. It is only on these proteids that artificial gastric juice will act.

—Purser, *Dublin Journal of Medical Sciences*.

THE VALUE OF FUCHSINE IN THE TREATMENT OF CHRONIC ULCERS.—I have, during the last three weeks, made some experiments with fuchsine, which have been of sufficient success to warrant their being brought to the notice of the profession. It occurred to me at that time that, owing to its great staining and diffusive properties, fuchsine might prevent the growth of pyogenic bacilli, and I then selected several cases of chronic ulcers to be treated with fuchsine. These ulcers were, without exception, in a very unhealthy condition; some were painful, all had much discharge and were bad-smelling.

Formula:

R.—Fuchsine gr. xij.
Alcohol,
Water āā ʒviii.

The mode of application is as follows: The wound, after being washed with warm water, is well saturated with the solution, and a piece of lint soaked in the same solution is placed upon the raw surface, ordinary cotton-wool is wrapped around the limb, and bandages applied. This dressing is to be changed every two to four days. The results are very striking; discharge and odor cease immediately; pain, if it has been present, disappears, and healthy granulations soon spring up. Cases which did not respond to other treatment rapidly improved and were cured with fuchsine. I did not observe any bad effects in about forty cases thus treated.

The disadvantages are that it stains so freely, but if a little care is used there is no need to soil the hands or linen. I have found a small glass syringe very useful in applying it, and cotton-wool, which has not been deprived of its oil, will prevent it from penetrating the dressing.

The advantages are:

1. That it is a very inexpensive drug and well adapted for hospital and dispensary practice.
2. It has great analgesic powers, it having arrested pain in every instance.
3. If properly applied it will arrest suppuration and odor absolutely.
4. It produces improvement and cure in most every case.

CASE I.—A. W.—, ulcer of right leg, about three inches in diameter, and of twelve years' standing. When first observed was discharging and ill-smelling. Has been treated with fuchsine for two weeks; discharge has ceased, healthy granulations are present and the ulcer is much diminished in size.

CASE II.—James M.—, ulcer of left leg, two inches in diameter, of eighteen months' duration, very foul smelling; has been under treatment for three weeks, and is cured.

CASE III.—John M.—, ulcer of left leg, two inches in diameter, existed for nine years and presented no intentions of healing; under fuchsine treatment for three weeks, and to-day, only a small granulating wound remains.

CASE IV.—Daniel S.—. When brought to the hospital had a number (about ten) of small ulcers on the right leg; duration, four months. Patient had been drinking hard and was in poor physical condition; ulcers have been dressed with fuchsine for three weeks, and patient has been discharged cured.

CASE V.—William D.—, has a very large ulcer of left leg, existed ten years, encircles the leg from ankle to middle of calf; has been under treatment for two years without much improvement; ulcer healed rapidly under fuchsine.—Rosenberg, *Med. Record*.

IMMUNITY AGAINST DIPHTHERIA AND TETANUS.

—The nature of the researches which have lately been going on in the Hygienic Institute, of Berlin, has given rise to much speculation. Professor Carl Fraenkel has at length published the result of his investigations on diphtheria as a result of experiments on animals. In describing the agent, he says that the not yet chemically defined class of proteid bodies called toxalbumins somewhat resembles, but differs in essential points from, ferments, inasmuch as the quantity of the ferment does not govern the result of its action, whereas the action of toxalbumin is altogether dependent upon the quantity used. He states further, that immunity from diphtheria is secured, first, by the use of attenuated virus prepared by Pasteur's method, and, in the second place, by injecting the bacillary products found in such cases.

The bacillus can be attenuated, but its cultivation cannot be carried to any great length, and it soon recovers in a mysterious manner its former normal virulence. Inoculation with the attenuated bacillus affords a partial protection only, and serves to postpone the fatal issue. But the method of attenuating the bacillus of diphtheria by heating or culture in anti-septic media has produced unsatisfactory results. Experiments with the bacilli which have been attenuated by culture in unsuitable media, like agar-agar, have hitherto produced only negative results, and those conducted with dried toxalbumin were also unsatisfactory. Inoculation with the culture fluid, which had been heated to 131° F., and filtered through Chamberlain's filter, had the power of rendering the body more resistant to the infection, but did not insure immunity. Animals which were inoculated with one-tenth of a cubic centimeter died in from three to nine days, while control animals died in from thirty to thirty-six hours. Better results were obtained with large and dilute doses than with concentrated ones, which are more dangerous to use. Perfect immunity was obtained by inoculating from 10 cc. to 20 cc. of the bouillon culture, which had been kept for three weeks, and attenuated by heating to a temperature of 149° or 158° F., but the test is a virulent one, and inoculation must be postponed for at least fourteen days. It is also shown that the diphtheritic virus and the protective agent are different substances, inasmuch as immunity is obtained by small injections of the culture products: when injected in large doses there was no evidence of direct infection. At the Institute of Hygiene in Berlin, of which Dr. Koch is head, Drs. Behring and Kitasato have succeeded in curing animals which have been infected with tetanus or diphtheria. Moreover, by inoculations with a perfectly constant fluid of inorganic character they had succeeded in rendering healthy animals refractory to these diseases. They maintain that the immunity thus obtained of rabbits and mice to tetanus is due to an alteration in the active property of blood serum, which has the effect of rendering harmless the toxic, tetanus-producing substances. Their experiments go to prove, in the first place, that the blood of rabbits, which possess immunity from tetanus, will destroy the tetanus virus; secondly, that the property is possessed by shed blood and its serum when freed from corpuscles; thirdly, such blood and serum has the power of acting therapeutically on other animals. Their experiments appear to show conclusively that the blood of those animals which do not possess this immunity from tetanus does not destroy in any way the tetanus virus, and that, therefore, this virus can be found in animals susceptible to tetanus which have been killed by the disease. They have succeeded

in protecting rabbits against living tetanus bacilli, as well as against the tetanus virus. No mouse or rabbit in its natural condition is found refractory to the influence of the tetanus poison.—*Lancet*.

ON THE ADVANTAGES OF PRODUCING ANÆSTHESIA BY SMALL AND CONTINUOUS DOSES OF CHLOROFORM.—Deaths from chloroform are becoming so frequent that there is a danger that this most valuable anæsthetic will be discarded. In my opinion, chloroform has many advantages over ether, and the dangers attending its use may be greatly diminished if administered in small and continuous doses. It is probably the safest of all anæsthetics. The method I have carried out for a considerable period has been as follows:

A piece of lint is folded as a cone and placed a few inches from the mouth and nose. From five to ten drops of chloroform are poured on the lint from a two-ounce phial, the cork of which has had two wedge-shaped pieces removed so that the chloroform cannot be poured out freely. This is repeated about every thirty seconds. The respirations should be natural, free, easy, and not too deep; avoid early and deep respirations. In fifteen to thirty minutes the patient is anæsthetised. The average time is about twenty minutes. The advantages of this method are:

1. Toleration of the chloroform is produced and the fears of the patient are allayed.
2. Sense of suffocation and spasm of the glottis are rarely produced.
3. Noisy delirium and violent muscular excitement are less common.
4. Vomiting is also less frequent.
5. Stertorous breathing and lividity of the face are less common; stertorous breathing rarely need be produced at all if the chloroform be given in small doses.
6. Less tendency to syncope.
7. Much less chloroform required.

Experience teaches that the system will tolerate toxic doses of drugs with perfect safety if only small doses are at first given and then gradually increased. This is the principle we need to learn in producing anæsthesia with chloroform.

The disadvantage which is urged against this method is that it takes too long. Some anæsthetists can produce anæsthesia with chloroform in three or four minutes; but the risks are considerable, and I could not conscientiously do it. The safety of the life of the patient is paramount. Having seen the evils and dangers of the ordinary quick method as carried out in all our hospitals and in private practice, I have been led to try the slow method and am well satisfied. In *Medical Reprints* for October 15, 1890, I find there is a reference to the slow method, and that Dr. Leon Labbe in 1881 described the method before the Académie de Médecine. Not having read the paper I cannot give the details of it. I would urge that the method described should have a fair trial, and that careful observations should be made in our large hospitals. If this is done I believe the quick method will be for ever discarded, and that "death from chloroform" will be very rarely recorded.

The above remarks refer to adults. Children are less liable to the dangers of chloroform, but with them it is safer to produce anæsthesia more slowly than is commonly done.

—John Brown, *Brit. Med. Jour.*

Medical News and Miscellany.

CUSTOMER: "I am troubled with rats in my room."
Druggist: "Yes, sir. Bromide or ammonia cocktail?"—*Life*.

NOT FAITH, BUT WORKS.—"Do you believe in cures effected by the laying on of hands?"

"I certainly do. There is nothing like spanking to make a child behave himself."

PHILANTHROPIST: "I think you can be cured so you will not have to use crutches at all."

Indignant Cripple: "Do you want to rob me even of my professional implements?"

A PACK of wolves attacked a man and his dog in Northern Michigan. The man fell down and prayed to be spared, and the wolves turned tail on him. His poor dog, not being able to pray, started off on a run, but was overhauled and devoured in a fashion peculiarly characteristic of the Michigan wolves.

—*Detroit Free Press*.

Now here is the opportunity of their lives for the Christian scientists. Let them hunt up those wolves, or follow their dupes into the fever-jungles of tropical Africa. If they escape, their cause will receive a boom; while if they die, they can do so in full confidence that humanity is thereby a gainer.

A SPECIAL meeting of the Manchester Medico-Ethical Association was held on December 1, to consider the present high death-rate at Manchester and Salford. Several of the members spoke plainly as to the causes of the high death-rate at Manchester, and recommended systematic instruction in sanitation in the public schools of the city. It was decided that the secretaries of the society should request the mayor to convene a meeting of the medical profession and others interested to discuss the subject, and that they should also urge upon the school board the desirability of instruction in sanitation being given to children as part of their education. Where are our school boards on this matter?

PREAMBLES and resolutions relative to the Medical and Surgical College of New Jersey, adopted by the District Medical Society for the County of Hudson:

WHEREAS, A certain medical institute, called the "Medical and Surgical College of the State of New Jersey," chartered by special Act of this State, approved March 17, 1870, was organized during the year 1888, and opened in three small rooms on the top floor of the general office building, No. 47 Montgomery street, Jersey City; and

WHEREAS, Said alleged college has graduated several students whose diplomas have been presented to the Hudson County Board of Health, and who have been refused registration; and

WHEREAS, It has appeared to this Society, by good and sufficient evidence, that several members of the faculty, nearly all of whom are non-residents of this State, are either incompetent to deliver lectures on the topics assigned them, or are graduates of disreputable or fraudulent medical colleges; that the facilities for instruction in said alleged college are totally inadequate, and that no clinics, dissections or hospital practice have been or can be given; that the provisions of the charter of said college have not been observed by the authorities thereof; that the requirements of said charter, even if the same were strictly followed, are far below the standard of minimum requirements of medical colleges adopted and demanded by all medical authorities at the present time, and that, therefore, the possession of a diploma from said alleged college is no proof whatever that the holder thereof has received a good and sufficient medical education; and

WHEREAS, The State Board of Medical Examiners of this State will introduce a bill at the next meeting of the Legislature for the purpose of repealing said charter; be it

Resolved, That the District Medical Society for the County of Hudson does hereby earnestly protest against the existence of said alleged college as an unnecessary, inadequate and disreputable institution, tending to degrade and lower the standard of the medical profession; that the influence of this Society and of the individual members thereof be given to the support and passage of the bill to repeal said charter, and that a copy of this resolution be forwarded to the several medical societies of this State, with requests for their support and influence for the passage of said bill.

Attest: HENRY B. RUE, M.D., *Secretary*.

Jersey City, N. J., December 16, 1890.

PATENTS, ETC., on medical subjects, issued December 23, 1890:

Ammonia-soda apparatus.....J. P. BarnumLouisville, Ky.
Bitters.....P. Hebert.....New Iberia, La.
Dental chair.....E. T. Starr.....Philadelphia, Pa.
Dental plugger.....J. L. Mewborn.....Memphis, Tenn.
Artificial denture.....J. E. Low.....Chicago, Ill.
Yellow-red dye.....C. Schraube.....Ludwigsh'fen-on-the-Rhine, Germany.
Préparing nitro cellulose.....G. M. Mowbray.....North Adams, Mass.
Device for inducing full respiration.....C. C. Davis.....Los Angeles, Cal.
Respirator.....K. Illing.....Zwickau, Germany.
Utilizing rhubarb chips.....A. Bartholf.....New York, N. Y.
Apparatus for molding caoutchouc palate-plates for artificial teeth.....L. Pritzzius.....Ludwigsh'fen-on-the-Rhine, Germany.

Temperature regulator.....J. F. McElroy.....Albany, N. Y.

TRADE-MARKS.

Eye-lotions and cosmetics.
(The word "Oculine").....Oculine Manufacturing Co.....New York, N. Y.

Perfumery. (The words "Spanish Lilac").....C. B. Woodworth & Sons.....Rochester, N. Y.

Remedy for lung and throat troubles. (The representation of a pineapple, with the word "Pineapple" above it and the word "Syrup" below it).....The Eccles Drug Co. Franklin, Ind.

Insect powder. (The representation of a ram's head, and the words "Fernaline Sheep Dip").....Fernaline Chemical Co.....New York, N. Y., and Charleston, S. C.

Liniment. (The words "Fernaline Balsam").....Fernaline Chemical Co.....New York, N. Y., and Charleston, S. C.

Digestive table-salt. (The word "Pepsalia").....G. G. Stern.....London, England.

—CHARLES J. GOOCH, *Patent Attorney*.

LOCK BOX 76, WASHINGTON, D. C.

THE PROPOSED MEDICAL EXAMINER'S BILL.

AN ACT to regulate the practice of medicine and surgery, to establish a State Board of Medical Examiners and Licensers, to define the powers and duties of such board, the qualifications of applicants for license, the manner of licensing, and making an appropriation for said board.

WHEREAS, The safety of the public is endangered by incompetent physicians and surgeons, and due regard for public health and the preservation of human life demands that none but competent and properly-qualified physicians and surgeons shall be allowed to practise their profession;

Section 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by authority of the same, that within one month after the passage of this act the governor shall appoint a State Board of Medical Examiners and Licensers consisting of nine members, three to serve for one year, three for two years, and three for three years in the first instance, and thereafter annually the governor shall appoint three members to serve for three years in place of those whose terms then expire. The said persons so appointed shall be graduates of some legally-chartered college or university having the power to confer medical degrees, citizens of the United States and of this commonwealth who shall have been in active practice of medicine or surgery for a period of not less than ten years, but no two of whom shall

be residents of the same county (and none of whom shall be member of the faculty or staff of any medical school or university). Each member of the said board shall receive a certificate of appointment from the governor, and shall file the same within twenty days with the Prothonotary of the Court of Common Pleas of the county in which said member is registered under existing law.

Sect. 2. The said board shall be known by the name and style of the State Board of Medical Examiners and Licensers of the Commonwealth of Pennsylvania, and shall have a common seal, and may make and adopt all necessary rules and regulations and by-laws not inconsistent with the constitution and laws of this commonwealth, or of the United States, and shall have power to locate and maintain an office within this State for the transaction of business. Five members of the said board shall constitute a quorum for the transaction of business.

Sect. 3. Every appointment to fill a vacancy or vacancies in the said board shall be for the unexpired term, and the said vacancy or vacancies shall be filled by the governor within sixty days after notification of the same by the board, and he shall have power to remove any member of said board for criminal, scandalous, or dishonorable conduct.

Sect. 4. The said board shall organize at Harrisburg within three months from the date of their appointment, and shall elect from its own number a president and secretary who shall also act as treasurer, both of whom shall hold their offices for one year, or until their successors are chosen.

Sect. 5. The members of the said board shall each receive a salary not exceeding three hundred dollars per annum, to be paid out of the fees for examination. The secretary and treasurer shall receive an additional salary, to be fixed by the board, and shall file with the president of the board a bond in the sum of one thousand dollars, conditioned for the faithful performance of his duties. The necessary expenses of the said board shall also be paid out of the fees, except as provided in section 12 of this act, and any balance remaining from the fees, after the disbursements herein specified, shall be paid into the treasury of the commonwealth.

Sect. 6. The said board shall examine all applicants for license to practise medicine or surgery in this commonwealth who are properly qualified according to the provisions of section 7 of this act, and no one shall be excluded or rejected on account of adherence to any special system or school of practice. It shall hold two stated meetings in each year, one at Pittsburgh, and one at Philadelphia, respectively, and may hold special meetings at such times and places as it may deem proper. All examinations, when practicable, shall be conducted in writing, and all examination papers, together with the reports and action of the examiners thereon, shall be preserved among the records of the said board for a period of five years, during which time they shall remain open for inspection at the office of the said board.

The applicants shall be examined in anatomy, physiology, chemistry, pathology, hygiene, materia medica, and therapeutics, principles and practice of medicine, surgery, and obstetrics, and each applicant upon receiving from the secretary of the board an order for examination shall draw by lot a confidential number, which he or she shall place upon his or her examination paper, so that when said papers are passed upon by the examiners, the latter shall not know by what applicant said papers have been prepared, and upon each day of examination all candi-

dates shall be given the same set of questions. Provided that any candidate for examination may elect the system of materia medica and therapeutics in which he or she shall be examined.

Sect. 7. Any person, on paying twenty dollars to the secretary of said board, and on presenting satisfactory proof of being over twenty-one years of age, of good moral character, and of having received a sufficient preliminary examination, as defined by said board, and a diploma from some legally-incorporated medical college or university having authority to confer degrees in medicine, shall be entitled to examination by the said board, and in case of failure at any examination shall have the privilege of subsequent examinations without the payment of an additional fee. Each applicant who shall have passed a satisfactory examination shall receive from the said board, under seal, a license to practise medicine and surgery in the Commonwealth of Pennsylvania, and the said board may at its discretion grant licenses, without examination, to persons holding licenses from similarly-constituted boards of examiners or boards of health in other States.

Sect. 8. The secretary shall record in a book to be kept for this purpose in the office of the said board, the name, age, sex, residence, date, and place of examination, the examination number, the examination average on each branch, the general average, and date of issue of license, in case such license is granted. Said book shall be open to public inspection, and on or before the last day of December of each year the said board shall publish, or cause to be published, a list of the names and addresses of such persons as shall have received licenses from the said board within twelve months immediately thereto preceding.

Sect. 9. After the first day of July, A. D. 1891, no person shall enter upon the practice of medicine or surgery in the State of Pennsylvania unless he or she has complied with the provisions of this act, and shall have exhibited to the Prothonotary of the Court of Common Pleas of the county in which he or she desires to practise medicine or surgery, a license duly granted to him or her by the said State Board of Examiners and Licensers, whereupon he or she shall be entitled, upon payment of one dollar, to be duly registered in the office of the Prothonotary of the Court of Common Pleas in said county, and any person violating any of the provisions of this act shall be guilty of a misdemeanor, and upon conviction thereof in the Court of Quarter Sessions of the county where the offence shall have been committed, shall pay a fine of not less than one hundred dollars nor more than five hundred dollars for each offence, one-half of which fine shall be paid to the prosecutor.

Sect. 10. Nothing in this act shall apply to commissioned medical officers of the United States Army or Navy, or of the United States Marine Hospital Service, nor to any member of the house or resident staff of any legally-chartered medical college or university or hospital during his term of service therein, nor physicians of other States meeting duly registered physicians in this State in consultation, nor to those practising dentistry exclusively. And nothing in this act shall be construed to prohibit the practice of medicine and surgery within this commonwealth by any practitioner who shall have been duly registered before the first day of July, A. D. 1891, according to the terms of the act entitled "An Act to provide for the registration of all practitioners in medicine and surgery," approved the eighth day of June, A. D. 1881.

Sect. 11. For the purpose of this act, the words

"practice," "medicine," or "surgery" shall mean to treat, operate on, or prescribe for any physical ailment of another. But nothing in this act shall be construed to prohibit service in cases of emergency or the domestic administration of family remedies.

Sect. 12. The sum of one thousand dollars, or so much thereof as may be necessary, is hereby appropriated to meet the necessary and legitimate expenses of the said board for the year A. D. 1891.

Sect. 13. All acts or parts of acts of Assembly inconsistent herewith shall be and are hereby repealed.

GLANDERS is prevalent among the live stock of central New Jersey.

OUT of 7,709 deaths in New York State in November, 984 were attributed to consumption and 1,207 to acute lung ails.

DR. JOHN DAVIS, of Cincinnati, died suddenly on Christmas evening. He was president of the Law and Order League at the time of his death.

WRIGHTSVILLE, PA., is afflicted with diphtheria; four children in one family in Newberry township having died of that disease within a short time.

DURING November diphtheria (including croup) killed 160 in New York City, 106 in Brooklyn, 23 in Buffalo, 14 in Rochester, and 139 in the balance of the State.

THE bride of a medical student at Alba, Iowa, attempted suicide on her wedding night. He had probably failed to completely divest himself of the odor of the dissecting-room.

DEATHS from aconite are very rare; as, in spite of the most alarming symptoms, stimulants usually prove successful in counteracting the lethal tendency. But last week a young veterinarian, Dr. Doyle, took a dose of the tincture by mistake and dropped dead.

SOME statistics as to the alarming number of suicides among the pupils of middle class schools in Germany were recently given in the *British Medical Journal*. The Prussian Government has, it is stated, ordered an official inquiry to be made into the causes of the evil, with a view to its prevention.

BETWEEN 1879 and 1888 the number of persons who died of phthisis in Holland is said to have been not less than 247,687, being at the rate of 5.24 per mille of the whole population. During the same period the proportion of deaths from all other diseases of the respiratory organs was only 2.58 per mille.

IT does one's heart good to see boards of health rousing themselves to "jump on" the vendors of "lumpy-jawed" and diseased beef. Dr. Wickersham, of the Chicago Board, declares that large quantities of bad meat are shipped into the markets. All who are interested in keeping men in health will hope that the investigations now being made before the Chicago grand jury will bring to justice the criminals who wilfully hazard the public health in insane attempts to make money.

DURING November, 1890, New York City reported 2,748 deaths; of which 498 were attributed to acute lung diseases, 394 to consumption, 204 to nervous diseases, 193 to urinary diseases, 187 to heart disease, 168 to digestive diseases other than diarrhœa, 160 to croup and diphtheria, 79 to cancer, 48 to measles, 47 to diarrhœa, 40 each to scarlet fever and to old age, 43 to puerperal diseases, 34 to typhoid fever, 26 to whooping-cough, 13 to cerebro spinal fever, 12 to malaria, and 7 to erysipelas.

A FAITH-CURE doctor at Camden, Ohio, has varied the usual methods of that school by running off with another man's wife, after having broken up several families.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy AND Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from December 9, 1890, to December 29, 1890.

By direction of the Secretary of War, Captain Marcus E. Taylor, Assistant-Surgeon, is relieved from further duty at Boise Barracks, Idaho, and will proceed, at the expiration of his present sick leave of absence, to Vancouver Barracks, Washington, and report in person to the commanding officer of that post for duty, reporting also, by letter, to the commanding general, Department of the Columbia. Par. 17, S. O. 287, A. G. O., Washington, December 9, 1890.

By direction of the Secretary of War, Captain Charles M. Gaudy, Assistant-Surgeon, now on leave of absence, will report in person, without delay, to Colonel Eugene A. Carr, Sixth Cavalry, at Rapid City, South Dakota, for duty with troops in the field, reporting also, by letter, to the commanding general, Department of Dakota. Par. 14, S. O. 287, A. G. O., Washington, D. C., December 9, 1890.

First Lieutenant Thomas U. Raymond, Assistant-Surgeon, having been ordered to temporary duty at Vancouver Barracks, Washington, by the commanding general, Department of the Columbia, is assigned to duty at that post, and relieved from further duty at Fort Sherman, Idaho. S. O. 294, A. G. O., Washington, D. C., December 17, 1890.

Paragraph 17, of Special Order No. 287, December 9, 1890, from this office, relating to Captain Marcus E. Taylor, Assistant-Surgeon, is so worded as to direct him to report to the commanding officer, Vancouver Barracks, Washington, for duty as Post Surgeon, relieving Colonel Bernard J. D. Irwin, Surgeon, of that duty. Captain Rudolph G. Ebert, Assistant-Surgeon, will be relieved from duty at Vancouver Barracks, Washington, upon the arrival of Captain Taylor, and will then proceed to Fort Huachuca, A. T., and report in person to the commanding officer of that post for duty. S. O. 294, A. G. O., Washington, D. C., December 17, 1890.

By direction of the Secretary of War, the extension of leave of absence granted Major Stevens G. Cowdrey, Surgeon, in Special Orders, No. 263, November 10, 1890, from this office, is further extended ten days, on account of sickness. Par. 4, S. O. 293, A. G. O., December 16, 1890.

By direction of the Secretary of War, Captain Francis J. Ives, Assistant-Surgeon, now on leave of absence, will proceed to Rapid City, South Dakota, and report in person to Colonel Eugene A. Carr, Sixth Cavalry, for duty with troops in the field, relieving First Lieutenant William B. Barrister, Assistant-Surgeon, and reporting also by letter to the commanding general, Department of Dakota. Par. 18, S. O. 289, A. G. O., Washington, D. C., December 11, 1890.

Leave of absence for fourteen days, to take effect on or about December 20, 1890, is granted Captain William Stephenson, Assistant-Surgeon. Par. 18, S. O., 291, A. G. O., Washington, D. C., December 13, 1890.

By direction of the Secretary of War, Captain Walter Reed, Assistant-Surgeon, now on duty at Baltimore, Maryland, will report in person, without delay, to commanding officer, Fort Keogh, Montana, for temporary duty at that station, and by letter to the commanding general, Department of Dakota. S. O. 291, Headquarters of the Army, A. G. O., Washington, D. C., December 13, 1890.

By direction of the Secretary of War, Captain William O. Owen, Jr., Assistant-Surgeon, now on leave of absence, will report in person, without delay, to Colonel Eugene A. Carr, Sixth Cavalry, at Rapid City, South Dakota, for duty with troops in the field, and by letter to the commanding general, Department of Dakota. Par. 17, S. O. 291, A. G. O., Washington, D. C., December 13, 1890.

By direction of the Secretary of War, Major Charles Smart, Surgeon, is detailed as a delegate to represent the Medical Department of the Army, at the annual meeting of the American Public Health Association, to be held at Charleston, South Carolina, December 16 to 19, 1890. He will proceed to Charleston, accordingly, and upon the final adjournment of the association, return to his station in this city. Par. 2, S. O. 290, A. G. O., Washington, D. C., December 12, 1890.

By direction of the Secretary of War, the leave of absence granted First Lieutenant Freeman D. Walker, Assistant-Surgeon, in S. O. 85, Department of Platte, November 11, 1890, is extended one month. Par. 9, S. O. 298, A. G. O., Washington, D. C., December 22, 1890.

By direction of the Secretary of War, Captain Robert J. Gibson, Assistant-Surgeon, now on leave of absence, will report in person, without delay, to the commanding officer, Fort Mead, South Dakota, for duty with the Seventeenth Infantry, in the field, reporting by letter to the commanding general, Department of Dakota. Par. 6, S. O. 297, A. G. O., Washington, D. C., December 20, 1890.

By direction of the Secretary of War, leave of absence for six months, on surgeon's certificate of disability, with permission to leave the Department of Texas, is granted Captain John J. Cochran, Assistant-Surgeon. Par. 2, S. O. 298, A. G. O., Washington, D. C., December 22, 1890.

By direction of the Secretary of War, Captain William J. Wakeman, Assistant-Surgeon, is relieved from the further operation of Par. 13, S. O. 254, A. G. O., October 30, 1890, and telegraphic instructions of the 16th instant, from this office, transferring him from Fort Bidwell, California, to Fort Huachuca, Arizona Territory, and he will return from Reno, Nevada, to Fort Bidwell, for further duty at the latter post. Par. 3, S. O. 300, A. G. O., Washington, D. C., Dec. 24, 1890.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ending December 20, 1890.

WYMAN, WALTER, Surgeon. Granted leave of absence for twenty days. December 11, 1890. To attend meeting of the American Public Health Association, December 12, 1890.

LONG, W. H., Surgeon. Granted leave of absence for seven days. December 20, 1890.

MURRAY, R. D., Surgeon. Granted leave of absence for thirty days. December 20, 1890.

IRWIN, FAIRFAX, Surgeon. Detailed for special temporary duty at M. H. Bureau. December 10, 1890.

CARTER, H. R., Passed Assistant-Surgeon. To attend meeting of American Public Health Association. December 11, 1890.

WASDIN, EUGENE, Passed Assistant-Surgeon. To attend meeting of American Public Health Association. December 11, 1890.

KINYOUN, J. J., Passed Assistant-Surgeon. Granted leave of absence for thirty days, with permission to go abroad. December 11, 1890.

GEDDINGS, H. D., Assistant-Surgeon. Upon expiration of leave to proceed to New York, N. Y., for temporary duty. December 18, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending December 20, 1890.

BLOODGOOD, DELEVAN, Medical Director. Ordered to Charleston, S. C., to represent the Medical Corps U. S. N. at meeting of American Public Health Association.

AMES, H. E., Passed Assistant-Surgeon. Ordered as delegate to Charleston, S. C.

BARTLETTE, D. M., Surgeon. Detached from Naval Hospital, Philadelphia, and ordered to special duty in connection with World's Columbian Exposition.

DICKSON, S. H., Passed Assistant-Surgeon. Detached from the U. S. S. "Atlanta," and granted two month's leave of absence.

WENTWORTH, A. R., Passed Assistant-Surgeon. Ordered to the U. S. S. "Atlanta."

EVANS, SHELDON D., Assistant-Surgeon. Ordered to Naval Academy, Annapolis, Md.

DECKER, CORBIN J., Passed Assistant-Surgeon. Detached from Naval Academy and ordered to Naval Hospital, Philadelphia, Pa.

The Times and Register.

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NEW YORK AND PHILADELPHIA, JANUARY 10, 1891.

Whole No. 644.

ORIGINAL ARTICLES.	PAGE		PAGE		PAGE
THE EYE IN GENERAL DISEASE. By P. I. Leonard, M.D.	21	Cynobex Hebetis.	29	Abscess of the Larynx. <i>Mackenzie</i>	32
LACERATED WOUND OF THE AXILLA FROM A BARBED WIRE—REPORT OF A CASE. By Geo. N. Lowe, M.D., Randall, Kan.	22	Leprosy in the West Indies.	29	Gangrene After Typhoid Fever. <i>Lancel</i> . .	32
RECENT OBSERVATIONS AT THE BERLIN CLINICS. By Donnel Hughes, M.D., Philadelphia	24	Testing Drinking Water.	29	Turning Twelve Hours After Rupture of Membranes. <i>Lancel</i>	33
SOME REMARKS ABOUT STATIC ELECTRICITY. By William R. D. Blackwood, M.D., Philadelphia	25	German School Reform	29	The Treatment of Chronic Rheumatism. <i>Staple</i>	33
THE POLYCLINIC.		Electrolysis of Animal Tissues	29	Pathology of Diphtheria. <i>Eichberg</i> . . .	33
MEDICO-CHIRURGICAL HOSPITAL:		LETTERS TO THE EDITOR.		Cactus Grandiflorus as a Substitute for Digitalis. <i>Hills</i>	34
Acute Tonsillitis. <i>Waugh</i>	27	A Primitive Cesarean Section. <i>Baskerville</i> , 30		Treatment of Dysmenorrhœa. <i>Champneys</i> , 34	
Albuminuria and Dropsy. <i>Waugh</i>	27	BOOK NOTICES.		The Influence of Deep Breathing Upon the Vital Capacity of the Lungs. <i>Timofeyer</i> .	34
Acne. <i>Waugh</i>	27	Cyclopedia of the Diseases of Children. <i>Keating</i>	30	Post-partum Loss of Blood the Result of Conservative Design. <i>Christian</i>	35
JEFFERSON MEDICAL COLLEGE:		PAMPHLETS	31	Is Concussion of the Lungs a Cause of Pneumonia? <i>Burton</i>	35
Influenza	27	THE MEDICAL DIGEST.		Treatment of Diphtheria by Peroxide of Hydrogen. <i>Dickey</i>	35
Paralysis Agitans	27	Acute Pneumonia. <i>Blodgett</i>	31	On the Treatment of Chronic Endometritis by the Intra-uterine Application of Boric Acid. <i>Duke</i>	36
Hydrocele	27	Creolin in Erysipelas and Eczema. <i>Roth</i> .	31	Royal Medical and Chirurgical Society. <i>Hewitt</i>	36
Persistent Headache	27	Treatment of Dysentery by Irrigation of Lower Bowels. <i>Koritin</i>	31	The Collodion Dressing in Minor Surgery. <i>Gottheil</i>	37
Ichthyosis	27	A Case of Oesophagotomy for the Removal of a Foreign Body. <i>Grubert</i>	31	The Bacillus Coli as a Cause of Enteric Fever. <i>Rodet</i>	37
A Purgative. <i>Bartholow</i>	27	Epilepsy from Injury to the Head Cured by Trephining. <i>Miller</i>	31	The Anti-fermentative Treatment of Infantile Diarrhœa. <i>Luff</i>	38
Cancer, Ulcer	27	Absorbing Power of Uterus and Vagina. <i>Landau</i>	31	MEDICAL NEWS AND MISCELLANY, 39	
Exophthalmic Goitre	27	Creolin: Antiseptic or Toxic? <i>Bitter</i> . . .	31	NOTES AND ITEMS	iv, xii
EDITORIALS.		Resorcine in the Treatment of Wounds Infected at Post-mortem Examinations. <i>Audeer</i>	32		
CURABILITY OF ACUTE PHTHISIS	28	Surgical Bacteriology. <i>McAlester</i>	32		
ANNOTATIONS.		Massage in Chronic Ulcers. <i>Brit. Med. Jour.</i>	32		
The University Medical Journal	29				

Original Articles.

THE EYE IN GENERAL DISEASE.¹

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THE consideration of the eye symptoms in general disease may prove an interesting subject before a society composed of general practitioners of medicine.

In the diagnosis of many ailments frequently met with by the busy physician, insufficient attention is given to the importance of an accurate examination of the eye. For in this delicate organ we have the advantage directly to see and watch diseased processes. The eye, with its fine structure and complex function, gives us this rare opportunity in medicine, and we are frequently able to make a diagnosis of a disease in a different organ. The eye reveals what is hidden in the more obscure paths of diagnosis.

It will not be the purpose of this paper to give more than a general outline of the changes found in the eye in the more frequent diseases. In the general disturbances of nutrition in respiratory, digestive, sexual, infectious, and especially in nervous diseases, the eye is involved to a greater or lesser degree. In general anæmia, the eye shares the fate of other organs, and the optic disk appears pale, the blood-vessels are thin, and the general appearance of the fundus is of a pale red.

Scrofula is a prolific cause of diseases of the lids, blepharitis ciliaris, as well as conjunctivitis and keratitis phlyctenulosa et ulcerosa.

Disturbances of vision in diabetes are seen in two-

thirds of the cases, while some authors hold that they never saw a case without any.

Lesions to the organ of vision are enumerated as follows: Anomalies of accommodation and refraction, cataract, hemorrhages of the vitreous body, hemorrhagic retinitis, atrophy of the optic nerve, paresis of the extrinsic muscles of the eye, and keratitis, more or less grave.

In the respiratory organs we notice catarrh of the conjunctiva with catarrh of the nose. In chronic nasal catarrh diseases of the lachrymal sac occur. Catarrhal disease of the trachea and bronchial tubes is seen with herpes cornea, while emphysema shows retinal hemorrhages.

The ophthalmoscopic examination of the retina in acute miliary tuberculosis is of special diagnostic importance, since the diagnosis can be made absolutely certain by finding miliary tubercles in the choroid coat. Tubercles may first show themselves in the choroid coat in the acute disease, while in general tuberculosis no tubercles are seen in the choroideal, according to Litten. They may appear independently in the iris, the vitreous body, retina, conjunctiva, and the lids.

In hypertrophy of the left ventricle we find retinal hemorrhages and vitreous opacities, while in endocarditis, through separation of some fine particles, we see embolism of the arteria centralis retina. If a thrombus lodges at the exit of this artery, we have a passing obscuration of the acuity of vision.

In valvular insufficiency we have nearly always arterial as well as strong venous pulsation on the optic disk. Arterial pulsation is only noticed in valvular insufficiency, the optic disk during systole becoming red, and during diastole pale.

In fatty and atheromatous degenerations, we see sub-conjunctival and retinal apoplexies.

Atheromatous retinal apoplexies in persons of an

¹ Read before the District Medical Society of Northwest Missouri, October 9, 1890.

advanced age are of prognostic importance, because of the possibility of apoplexy of the brain.

Toothache may lead to narrowing the region of accommodation, while during dentition phlyctenular and ulcerous inflammations of the cornea are noticed.

In acute nephritis, chronic swelling, and in contracted kidney, we observe retinitis albuminurica. The ophthalmoscope frequently diagnoses nephritis before it has even been suspected.

The sudden amaurosis of the pregnant, and of those in childbed, is considered as uræmic.

Eye diseases in connection with sexual disorders are more frequently found in women than in men. Menstrual disorders are seen with scleritis, neuro-retinitis, atrophía optic, iritis, etc. In sterile women atrophy of the optic nerve is quite frequent.

The organ of vision plays a very important part in diseases of the nervous system.

Apoplexy of the brain produces associated deviations of the eyeballs.

Irritation and general compression of the brain produces, nearly always, immobility of the pupils.

In meningitis, we may observe paralysis of all the extrinsic muscles of the eye.

By the continuation of the inflammation, and by the exudation pressing on the chiasma and optic tract, we get atrophy of the optic nerve. Mostly, children become blind in this manner.

Cerebro-spinal meningitis is accompanied in the beginning by catarrh and œdema of the conjunctiva. By irritation of the oculo-motorius, myosis is produced. Later, the symptoms of paralysis of this nerve appear, mydriasis, ptosis, and paralysis of the muscle supplied by it.

In tubercular meningitis we find, also, tubercles of the choroid.

Tumors of the brain are accompanied by choked disk, although its absence is not indicative of the absence of a tumor. The symptoms vary according to the location of the tumor, and sometimes the diagnosis is very difficult. If we have complete paralysis of a nerve, the tumor is probably situated on the base of the brain; if incomplete paralysis of several nerves, we may look for it in the brain itself. If hemiplegia, and paralysis of the oculo-motorius on the opposite side, the tumor is situated on the side of the oculo-motorius and in the vicinity of the crus cerebri.

In progressive bulbar paralysis, we see paralysis of the ocular muscles if the abducens and oculo-motorius ganglia are affected.

One-sided mydriasis is sometimes a forerunner of insanity. Generally we have choked disk, atrophy of the optic nerve, hemianopia, central scotoma, etc. In dementia and melancholia we frequently have an anæmic papilla.

In epilepsy, during an attack, we notice dilated pupils, due to irritation of the sympathetic nerve of the neck. During the attack, we have contraction of the retinal arteries, and, at the end of the tonic stage, the eyeballs often roll slowly to the opposite side from which the head is directed. The venous stagnation gives us a retinal venal engorgement. After an attack we find frequently small extravasations in the conjunctiva bulbi et palpebrarum.

In injuries of the spinal cord, we have the optic disk redder, and the retinal veins tortuous.

Tabes is often associated with atrophy of the optic nerve, and this symptom often precedes the disease for years. It begins by narrowing the field of vision, and advances from the optic nerve to the tractus and the corpora geniculata. The patients are very sensitive to bright light, and are able to see better in the

dark. The pupils are often contracted and irregular. A very early symptom is a reflex immobility of the pupil.

Paralysis of the ramus ophthalmicus leads to ophthalmia neuro-paralytica.

Rheumatism and gout are often the cause of iritis, choroiditis, keratitis, etc.

The infectious diseases associate themselves frequently with ocular troubles. In the beginning we may have conjunctivitis, blepharitis, and keratitis, in both measles and scarlet fever. In the latter disease, during the stage of desquamation, we observe retinitis albuminurica as well as a sudden passing amaurosis, accompanied with brain symptoms which are of a uræmic character. After scarlet fever we have sometimes accommodative asthenopia.

In variola the eye diseases are very frequent. In the commencement, conjunctivitis, which sometimes becomes blennorrhœic, ecchymoses of the conjunctiva and blepharitis. The limbus conjunctivalis is a favorite location for variola pustules. No pustules can be seen on the cornea. During the dry stage we see ulcerative keratitis with its consequences. As sequelæ are noticed, iritis serosa, glaucoma, neuro-retinitis diffusa and nephritica, as well as acute and chronic lachrymal diseases. After diphtheria we have frequently paralyzes of accommodation, and of one muscle after another, but of short duration. They appear at the termination of the local process when the general health has improved.

In malaria we notice central scotoma. In cholera the conjunctiva is dry, and the secretion of tears ceases, hence the dictum: "Cholera patients do not weep."

Pyæmia, by embolism, sets up suppurative processes in the choroid and retina.

Syphilis can cause disease in any part of the eye. The most frequent troubles, during the secondary stage, are iritis and choroiditis disseminata. The one-sided appearance is explained by the particles of virus in one eye being arrested in one, while they pass through the other one, or never enter it. From a syphilitic infection comes scleritis, retinitis diffusa, and choroid retinitis. Ulcerative keratitis is not seen in syphilis, while keratitis parenchymatosa is often the result of the hereditary form. Through syphiloma of the brain we may have ocular paralysis, amaurosis and atrophy of the optic nerve.

After intoxication with different drugs such as nicotine, alcohol, lead, quinine, morphine, haschich, bromides, iodoform, digitalis, etc., we have characteristic amblyopiæ and amauroses. After poisoning from meat, paralyzes of accommodation and of the pupil have been observed.

The direction in which therapeutics must be directed will readily be seen. Here, as well as elsewhere in medicine, we must not lose sight of the fundamental principles underlying all diseases, where a rational understanding of pathology gives us the key-note to rational therapeutics.

LACERATED WOUND OF THE AXILLA FROM A BARBED WIRE—REPORT OF A CASE.¹

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THE infrequency of lacerated wounds in the region of the axilla from a barbed wire, complicated by three other severe lacerations in different

¹ Read at the sixteenth annual meeting of the Mississippi Valley Medical Association, held in Louisville, October, 8, 9, and 10, 1890.

regions of the same patient, and, at the same time, a serious contused wound of the right thorax, in a patient who had approximated senescence and corpulence, and having also to combat the results of depletion caused from hemorrhage and shock, with the intensity of heat from an August sun, and other intervening incompatibles which are frequently ushered upon a surgeon in a domiciliary practice being considered, with a successive termination, resulting in the patient's recovery, is the only plea I have for contributing this paper.

August 3, 1890, at 6.30 P.M., I was summoned in haste to visit Mrs. McK., residing five and a half miles in the country, who was severely wounded and supposed to be dying from the wounds she received by becoming entangled with a horse in a barbed wire fence. The horse, in attempting to liberate itself from the wire, had fallen twice upon the patient, inflicting a serious contusion of the right thorax and a deep laceration in the right axilla, as well as other regions of the body, with the wire, producing a severe hemorrhage and shock, which caused considerable alarm among the relatives and friends of the patient that were present.

I reached the patient at 7.20 P.M. She had been carried into the house and placed upon a cot.

A fearful wind, rain, and thunder storm had also approached to darken and disturb the elements without. The patient was of Scotch birth, aged fifty-seven years, medium in stature, weight two hundred and ten pounds; previous health good, but suffering from great exhaustion and shock. I hastened to examine her, to ascertain the extent of the injuries, and to secure the bleeding vessels as soon as possible with snap-catch hæmostatic forceps, until I could secure them by ligatures and torsion, and at the same time resuscitated the patient by restoratives. The examination revealed a severe ragged laceration in the right axilla; a second laceration at the lower third of the right humeral region; a severe contusion of the right thorax anteriorly and posteriorly; also two severe lacerations of right thigh, one transverse at the junction of the lower fourth, the second at the middle third, oblique, antero-posterior.

As the axilla was the most serious wound, and the greatest source of hemorrhage, I gave it my earliest attention. The wound in this region commenced at the lower border of the tendinous portion of the pectoralis major, and terminated at the spine of the scapula, in line with the scapular notch, down to, but not involving, the capsular ligament to any considerable extent. All muscles, vessels, and nerves were severed in this region, except the axillary and brachial arteries; and the external, internal, and median nerves were retained in a thin septum of muscular and nervous tissue. This laceration was so extensive that I was astonished to find the preservation of the main trunks of vessels and nerves. The only explanation I can give for their preservation is that they were lodged in the interspace of the barbs on the wire; yet, at the same time, the wire had cut the tissue down to the vessels and nerves, leaving the vessels and nerves mainly bare in front and septum behind.

After all ragged edges were pared smooth, and bleeding vessels secured with catgut ligatures and torsion, axilla shaved, wound and axillary region cleansed antiseptically with a 1-4000 bichloride of mercury, I closed the wound with No. 12 iron dyed silk, deeply inserting all main sutures, establishing free drainage, and supporting the muscles in this region with strong adhesive strips. The wound was

then dressed antiseptically with absorbent cotton and gauze, securing the dressing and sustaining the muscles by bandaging. The laceration at the middle of the lower third of the right humeral region was oblique to the axis of the limb, three inches in length antero-posteriorly, completely severing all tissue down to the periosteum. As this laceration was on the dorsum of the arm, bleeding was slight. I cleansed the wound antiseptically as before, and closed it with No. 12 iron dyed silk; inserting the sutures deeply, supporting the muscles with strong adhesive strips transversely, and dressed and bandaged as before.

The laceration at the juncture of the lower fourth of the right thigh was anteriorly and transverse to the axis of the femur, in extent three and a half inches; its greatest depth being one and a half inches. This wound was cleansed, closed, and dressed in the same manner as before stated.

The wound at the middle third of the right thigh was oblique, antero posteriorly, in extent four inches; its greatest depth being one inch and three quarters. There was considerable bleeding at this wound. The vessels were secured, wound cleansed antiseptically, sutured, and dressed as before, securing the dressing and sustaining the muscles in position by bandage.

The contusion of the right thorax was severe, anteriorly and posteriorly, with crepitation in fourth, fifth, and sixth right costæ. Two thirds of the anterior as well as posterior of the right thoracic region was a dark mass of contused tissue. I thoroughly shampooed the thorax antiseptically, dressing the wound with absorbent cotton and a many-tailed bandage. The bowels were thoroughly evacuated by enemata. I gave *per orem* milk, 8 ounces; brandy, $\frac{1}{2}$ ounce; followed by morphine sulphas, $\frac{1}{2}$ grain. In three quarters of an hour the patient was resting quite comfortably. I left orders for morphine sulphas, $\frac{1}{2}$ grain, to be given in six or eight hours if the patient complained of severe pain, and, after giving full directions to the nurse, departed.

I saw the patient at 9 A.M. August 4. She had rested fairly well during the remainder of the night. She took milk and brandy at 7 A.M.; morphine sulphas, $\frac{1}{2}$ grain, at 8 A.M. As she was complaining of great soreness and pain in the right thorax—temperature had risen to 102° Fahr.; pulse, 85; respiration, 18—I redressed contused wound of thorax, and applied compresses saturated with *linimentum camphoræ compositum* to the contused parts, to be repeated every five or six hours. As there was an excess of adipose tissue in this patient, with this ascent of traumatic heat, as well as the intensity of the hot weather, I gave her *potassii et sodii tartras* 3j, in *aqua pura* 3vij, to clear the bowels of excessive fecal matter. I also prescribed fluid extract of aconitum, 1 minim, in half teaspoonful of water, every three hours, to be followed by best brandy, $\frac{1}{2}$ ounce, after the administration of the aconite. Quinine sulphas, 3 grains, every three hours, in alternation with aconitum; morphine sulphas, $\frac{1}{2}$ grain, *pro re nata*. The salts operated freely in five hours, after which the patient was more comfortable.

August 5, 10 A.M. Patient resting comparatively well; temperature, 101°; pulse, 78; respiration, 17; continued treatment same as before, without the salts. Redressed the wound in the axilla; condition of wound, good.

August 6, 9.30 A.M. Patient resting reasonably well; temperature, 100°; pulse, 75; respiration, 17. Redressed the wounds on the limbs, all of which were improving. Continued medicine as before, with the addition of salts, which operated freely in

seven hours. After free evacuation of the bowels, there was great relief of soreness in the thoracic region.

August 7, 9 A.M. Patient's condition improving, and she is more cheerful. Temperature, 99° ; pulse, 65; respiration, 17; continued treatment the same as before, without salts. I now ordered beef soup, iced milk, and brandy to be increased, as her diet had been detailed sparingly.

August 8, 11 A.M. Patient became tired of recumbent posture; pain and soreness subsiding as rapidly as can be expected. Temperature, $98\frac{1}{2}^{\circ}$; pulse, 65; respiration, 17. I prescribed quinine sulphas, 5 grains, to be repeated every five hours with brandy, $\frac{1}{2}$ ounce. Morph. sulphas, $\frac{1}{2}$ grain, *pro re nata*.

August 9, 9 A.M. Temperature, $99\frac{1}{2}^{\circ}$; pulse, 64; respiration, 17. Patient resting well. I redressed the wounds, and removed all sutures. The wound on the lower third of the arm had closed by first intention, also the one on lower fourth of the thigh. The wound at the middle third of thigh gaped in the center about an inch, which I closed, and supported by strong adhesive strips, redressing them antiseptically.

The wound in the axilla was not so encouraging after removing all stitches; there was considerable gaping of the wound in the axillary space, but healthy looking, with a small amount of suppuration; healing by granulation. That portion of the wound commencing at the posterior border of the axillary space to the spine of scapula had reunited; also the portion anterior to the axillary space. There were no septic symptoms manifested during the entire course of the treatment. The wound in the axillary space healed by granulation. After removing the stitches and redressing the wounds, also a complete redressing of patient and bed, she expressed great relief. As the bowels had not acted for two days, the excess of adipose tissue and extreme heat of the weather being considered, with a view to a speedy recuperation of my patient, I ordered salts as before, to remove the excessive accumulations of the intestinal tract, with the further view of preventing a recurrence of traumatic pyrexia. I ordered the milk and beef soup diet with morph. sulphas, $\frac{1}{2}$ grain, to be continued *pro re nata*.

August 11, 3 P.M. Temperature, $98\frac{1}{2}^{\circ}$; pulse, 63; respiration, 17. Patient had rested quite well since my last visit (the 9th), and somewhat cheerful. Her general condition was good. She complained of recumbent quietude, and of considerable soreness, with pain, in the right axilla and right thorax. Her improvement was such that now she could be placed in a semi-recumbent posture. This change of posture was a great source of comfort to her. I continued treatment the same as before, without salts.

August 13, 5 P.M. Patient convalescing rapidly. Temperature, $98\frac{1}{2}^{\circ}$; pulse, 63; respiration, 17. Redressed all wounds, which had cicatrized nicely, except the one in the axillary space, which was healing rapidly by granulation. There was considerable soreness and pain in the right thoracic region; but as there had been a rapid absorption of effused blood, the parts contused were resuming their normal color rapidly.

As to the after-treatment, there was nothing special. The wound in the axillary space continued to heal rapidly by granulation; the soreness in the right thoracic region had subsided, and the patient was discharged September 1, 1890.

There still remained considerable numbness, or obtuseness, along the ulnar region of the forearm and

hand, with stiffness at the shoulder- and elbow-joints, and inability to rotate the shoulder-joint or extend the forearm to any considerable extent; yet, there was improvement each day in their action, and I think the patient will regain the use of the arm and shoulder to a reasonable extent. The patient at times complains of pain in the shoulder-joint and thorax, especially after retiring at night.

The special points of interest in this case are:

1. The severity of the wounds in the axilla and limbs, as well as the severity of the contused thorax.
2. The age of the patient with excess of adipose tissue, and the traumatic pyrexia; temperature not going beyond 102° at any time, and subsiding to normal in five days.
3. Rapid recovery—patient being discharged in twenty eight days.
4. The possibility of a useful limb.

RECENT OBSERVATIONS AT THE BERLIN CLINICS.

By DONNEL HUGHES, M.D.,
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HAVING returned from Berlin on the 18th inst., after an excellent opportunity of witnessing the treatment of cases of tuberculosis now practised in Berlin according to Koch's method, in response to many requests I will contribute a note as to my experiences in that city.

Access to the Royal Charité Hospital and Prof. von Bergmann's wards in the University Surgical Clinic was afforded me through the courtesy of the various physicians in charge. By special arrangement with Dr. Leu, staff physician to the hospital, all details of the methods employed were obtained. In this way I observed all the cases under treatment in the medical and surgical wards. In the first visit he taught a few of us their methods of staining the bacillus, viz.: with fuchsine solution and the methyl-violet stain, and demonstrated the microscopic appearances. After that Dr. Leu taught us the process of dilution of the lymph. One milligram of the lymph was used after dilution with boiled distilled water for the first injection in either adults or children. In using the syringe which Koch invented, and which is usually employed, strong alcohol must be used to first render it aseptic. Then open the stop cock, compress the bulb completely, while commanding with the thumb the opening in the top of the rubber air chamber. The fluid is then drawn up by gently relaxing the bulb until the solution reaches the desired height, as indicated by the lines of gradation on the glass cylinder, each one of which represents one-tenth of a cubic centimeter. The stop cock is then closed, and the needle placed on the barrel. The skin between the shoulder blades is rendered aseptic by thorough washing. The needle is then introduced to its full length, keeping just within the connective tissue. The stop cock is then opened, and the bulb compressed sufficiently to inject the fluid. After the needle has been removed, the surface over the seat of injection should be rubbed gently so as to diffuse the lymph.

Within four hours after the injection of a tuberculous subject a rigor usually occurs, and this is followed by rapidly increasing respiration, with accelerated pulse, and an elevation of temperature to 103° or 104° F., with all the symptoms that ordinarily accompany high temperatures. Within twenty-four hours the temperature was observed to gradually fall to normal and, in some instances, below normal. Twenty-four

hours after the fever has subsided a second injection is made. The strength of this is to be determined by the effect of the first injection. This is usually one milligram of increase in the first dose, but it can be increased by greater increments later, if the reaction is not well marked, up to an injection representing five centigrams of the pure lymph. This injection on alternate days must be continued until no reaction is produced, when the patient is considered to have received the full benefit of the lymph, and further treatment must be carried out on general principles.

It must be borne in mind that the lymph will not keep after dilution for any great length of time. Undiluted and securely sealed it is believed to keep indefinitely.

Experiments up to the present time have proven that this treatment is attended with the best results in tubercular joint disease, tubercular laryngitis, lupus, and tubercular glandular enlargements. In non-tubercular adenitis it is useless. I saw cases of tubercular laryngitis treated by this method in which the inflammatory changes produced such great constriction within a few hours that tracheotomy was required to prevent suffocation, recovery finally taking place. It may be mentioned in this connection that in cases of tubercular meningitis the treatment will prove fatal. The treatment should not be adopted in any case of general tuberculosis.

The use of this treatment in pulmonary phthisis must be carefully considered. The only suitable cases of this disease, as far as our knowledge extends at present, are those of circumscribed tubercular infiltration without the formation of cavity. In cases of phthisis, where both lungs are extensively involved, the inflammation which always takes place in the tubercular tissue may be so great as to cause death. The tendency is so strong to use the remedy in indiscriminate cases that physicians should be on their guard not to bring the remedy into disrepute.

4006 CHESTNUT STREET.

SOME REMARKS ABOUT STATIC ELECTRICITY.

BY WILLIAM R. D. BLACKWOOD, M.D.,
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AT more or less frequent intervals, papers appear in our journals concerning the use of this form of electric energy in various disorders, and from the contradictory statements made by the authors, many physicians are at a loss to know exactly what the value of the agent really is. Not long ago, I was told by a lady who came under my care that she would not, under any circumstances, allow me to use this particular method in her case, although I assured her that it would afford her immediate relief, and why was she so averse to its use? Simply because a gentleman had told his readers that the great beauty of it was that no disrobing was required. Well, some time before I took her in hand, she had a dose applied for bunions, and this was driven through her shoe; now, we know that static currents will go through leather, and through silk or other dress material; I frequently drop my silk handkerchief over the rods of the machine to show people that the spark won't hurt the lightest material of clothing, but I never attempt to put an applying electrode on any part of the person, except when it is *directly* placed on the skin. Well, the current did go through the shoe, but the pain was tenfold more unbearable than that of the original difficulty for which it (the static

current) was tried. It should be remembered that when resistance is opposed to the travel of the spark (or the silent discharge when the condensers are disconnected) through the intervention of any clothing, the current is obstructed long enough to concentrate the energy sufficiently to overcome that resistance, hence when it does flow, it does so violently. The disruptive discharge is always painful, and in direct proportion to the resistance interposed, hence it is always necessary to remove all covering from the part to which the current is applied. It is doing harm to teach the people, or the profession, that static electricity can, or should, be applied in any different manner from galvanism or faradic currents. In ordinary use, I seldom use any other than the so-called secondary induction current—that made by disconnecting the condensers—but now and then it is requisite to employ the direct spark; this is to some extent, painful, but when the electrodes are placed firmly on the cuticle, the discomfort is measurably lessened. This may be supposed to be a small matter, but it is one of the little things which make or mar treatment, and no one who presumes to instruct his confrères should be careless in his remarks, or wild in his statements; the simple suggestion that ladies would be more willing to entertain treatment electrically when disrobing was not required in the article which precipitated this calamitous interview with me, and it should not have occurred. It was well-meant, but inadvisable, and it has done harm to others besides my patient. Fortunately the lady was open to conviction, and she found, on trial, that static electricity could be applied, and applied with thoroughly good results, despite her unfortunate experience of the past.

Electricity is not a cure-all; it has its place; it is like any and all medicines or therapeutic means, invaluable when properly applied, and utterly useless when not needed. In these days when specialists are growling and cutting each other's throats in their endeavors to isolate some region of the anatomy which no one but the particular fellow understands how to cut out, it behooves those of us who deal with matters which are within the grasp of ordinary "general practitioners" to be precise; and this little hint is thrown out for the benefit of those who are willing to try any or all means aside from the fads which are current with the craze or fashion of those of the profession who work on the imaginations of the credulous people, some of whom are actually suffering, and who can be relieved by other and less radical means than laparotomy. The lady to whom I refer had periodical attacks of ovarian neuralgia, and had the proposition made to her that the removal of her ovaries would relieve the distress; fortunately, she was not led by glittering generalities, and, like a sensible woman, she tried something less radical, with the result of being cured, and still retaining those mysterious and unhappy organ—her uterine adnexa. Let me ask those of my friends who possess a good static machine, to try it in such cases of this sort which may come into their hands, and, if well handled, the result will, I am sure, be entirely satisfactory. The spirit has moved me to suggest this item to THE TIMES AND REGISTER through the appearance of another patient this afternoon who was also disinclined to let me try the effect of the static machine on her, and for the same reason that agitated the other—the poor woman had a big dose sent through her dress, corsets, etc., with the effect of leading her to believe that although it might do some folks good, it was entirely too demonstrative for her. For-

tunately for me (if not ultimately for her) she was open to conviction, and she left the office satisfied that the thing was not so dreadful after all; I hope to see her again, and to add her case to others of positive cures from an agent little understood by the general run of physicians, and not thoroughly so by many who pretend to be experts in its use.

Just one day previous to my seeing the report of the remarks made by a somewhat prominent gynecologist, to the effect that electricity had no place in medicine or surgery, *in his opinion*, a woman called on me professionally for relief from menorrhagia; she had been steadily losing blood for between two and three weeks on each reappearance of her menstrual period—that is, she would go for one week or occasionally ten days without a “show,” after that the hemorrhage would begin and keep up for a fortnight. She had been treated by dilatation of her womb, curetting, and cauterizing with liquids of which I do not know the composition, but this had been done by the people who are either under, or supposed to be under the instruction and control—or were at that time, for he has been superseded since then—of the oracle who made the remarkable statement.

My treatment of her was this: I inserted a sound (that terrible instrument) dipped in a mixture of glycerine and corrosive sublimate—I to 500—and passed a current of 75 M.A., for ten minutes; positive intra uterine, negative by a large cotton abdominal electrode. The external pole was wet with quite hot water, and kept hot throughout. The result of this business was that the hemorrhage has ceased; she has since then menstruated regularly, the amount of the flow has been smaller than for fifteen years, and the duration has been three days only. She had local peritonitis after the hospital treatment, but after mine she has been entirely comfortable, and went about her work in the household the next day. I have gotten tired of the sneers of know nothings in discussions on electro therapeutics long ago, and I simply keep at my private work with full satisfaction to my patients and myself; I found out ten years ago that most of the biggest gynecologists knew no more about the scientific use of any electrical apparatus than a cow does about integral calculus; and so long as belly ripping appeals to the imagination of credulous people, and spectacular operations with the sequent exhibition of the post-mortem specimens arouses the wonder of the general public, just so long will plenty of material be found to feed the clinics and private surgery of laparotomists.

Abdominal surgery has a certain place in practice—so has electricity; neither are specifics; but when a man stands up and tries to put his little opinion against the experience of hundreds of those who know better than himself what he is talking about, then it is time to kick. Without being unduly vain, I am ready to show at any time that what I have said about electricity as a curative agent in medicine during the past twenty five years, is strictly true, and many professional friends are ready to back me up in this direction, for hundreds of cases have come into my hands through physicians, both in this city and from far away points. I have more than once offered to illustrate the use of galvanism in lieu of some of these laparotomies, but with no encouragement—the operators don't want to lose their grip whilst the craze lasts; possibly it won't be so easy to eviscerate women after a while, and it is business to make hay whilst the sun shines. Having always done my own surgery in all except eye work, I have watched with thanks, as a matter of duty, all abdominal

operative procedures that were shown me, but, after reading for some time past, the remarks of some of the would-be specialists in this line, and seeing the fraternal exhibitions of their attitude toward each other in the laudable desire of each to limit as much of the trade to himself as possible, I feel that I can do better by myself, and I actually venture to say that I could have taught most of them more in the way of treating many pelvic troubles of women than they taught me; the welfare of the patient and not that of the operator being considered.

A few weeks ago my friend, Dr. Shoemaker, seduced me into visiting the Medico-Chirurgical College, under the pretence of examining a very fine static machine, and the first thing I knew, he had me in front of his class in a considerably abashed state, from the laudatory remarks made about me as an electrician. I had to say something, and having just treated a case of amenorrhœa by static electricity very successfully, I referred to that, amongst other matters, and this led to other remarks as to the value of electricity in general gynecological work. To leave no possible misunderstanding in the minds of my hearers, I alluded to the absolute necessity of laparotomy in many cases, and it gave me pleasure to state my belief that the gentleman in the institution in which we were assembled then, to whom my hearers were indebted for their thorough instruction in gynecology in general, and abdominal surgery in particular, Dr. Montgomery, was, beyond doubt, the one to whom I would refer a case in my own family, were I unfortunately called on to ask aid in such an emergency. I further referred to another member of the faculty, Dr. Garretson, in a different line of work, and alluded to the useful matters which he had taught me when listening to him in public lectures and in private conversations; little did I know how soon I would be compelled to solicit the invaluable aid of both these gentlemen in my own home! Within a week my eldest daughter was in the care of the professor of oral surgery for an affection of the face resulting from an alveolar abscess, which, but for his skill and constant attention, would have disfigured her for life; now she is well, and free from any defect. As I write, this evening—or actually midnight—my youngest daughter is, we hope and believe, out of danger from a desperate attack of membranous croup, which would have carried her off in less than an hour were it not for the exceeding skill of Dr. Montgomery, whose kindly and prompt aid saved her life a few days ago through intubation. In the lecture referred to before the class, I esteemed it an honor to say that these gentlemen were, in my opinion, not only thorough diagnosticians in their departments, but masters of the surgery demanded, and never in all my professional life have I felt more pleasure—and in this instance profound gratitude—in owning my obligation to each; they are an honor to the profession and to the institution whose faculty they so thoroughly adorn.

Lest any of my readers should imagine that I am in any degree wedded to the use of electricity in any or all disorders beyond its clearly defined position in therapeutics, I write these lines in addition to what was said above as to the “certain place in medicine of the various currents and abdominal surgery,” but I do so much more to return my thanks to the gentlemen named, and to show, so far as a public reference can in a journal such as THE TIMES AND REGISTER is, how much I owe them, and how sincerely I remember their great kindness to my dear ones.

The Polyclinic.

MEDICO-CHIRURGICAL HOSPITAL.

FOR a case of *acute tonsillitis* Waugh prescribed:

R.—Tinct. aconiti..... 5ss.
Tinct. belladonnæ..... 3j.

M.—S. Three drops every hour; to be applied to affected tonsil with a dropping tube.

A boy, four years of age, presented himself to Prof. Waugh with *albuminuria* and *dropsy*, following a well-defined attack of *roetheln*. It is not usual for this affection to have this or any other serious sequel. The same treatment was adopted as for scarlatinal dropsy—diuretics, vapor baths, and exclusive milk diet, with confinement to bed.

ACNE.

A case which had been treated by a number of local remedies, including red oxide of mercury and ichthyol, without any benefit. Three drops of ergotole were given thrice daily, and the tincture of benzoïn applied to the affected skin at bedtime.

—Waugh.

JEFFERSON MEDICAL COLLEGE.

Reported by J. E. TAYLOR, M.D.

IN the case of a man, aged twenty-three years, presenting himself at the medical clinic with the history of having had influenza, and since then has been losing flesh very rapidly. Patient has had several hemorrhages, sometimes amounting to as much as two pints. He has some cough. On percussion, there was elicited dullness at the apex of the left lung, more marked posteriorly. On auscultation, the breath sounds were perceived to be feeble, with some moist râles. The treatment was met by two indications: 1. To control the hemorrhage. 2. To improve the condition of the system. The following treatment was administered for the hemorrhage—

R.—Ext. ergotæ fl..... 3ss.
S. Every second hour.

R.—Tinct. aconiti gtt. j.
Syr. zingiberis,
Aque āā 3ss.

M.—Sig. Every four hours.

—with counter-irritation, and a nutritious and easily-assimilated diet. The patient was advised to keep perfectly quiet, and not to exert himself in any way, lest it might bring on a return of the hemorrhage.

In a case of *paralysis agitans*, brought before the class, the lecturer made the following point in diagnosis, namely, that in *paralysis agitans* the tremor stops on voluntary movement; whereas, in multiple sclerosis, the tremor begins on voluntary motion. He was given:

R.—Hyoscyamin. hydrobrom..... gr. ʒiſs.
S. Ter die.

In a case of *hydrocele*, treated at the clinic by Prof. Forbes, the following treatment was observed, viz.: After the parts were thoroughly sterilized with a solution of bichloride of mercury, an exploring needle was introduced. Upon withdrawal, a straw-colored fluid escaped. The fluid was then evacuated by introducing a trocar. The cavity was injected with equal parts of tr. of iodine and sherry wine. An antiseptic dressing was then applied, and the scrotum supported by a suspensory bandage.

In the case of a man, aged sixty-five years, presenting at the college clinic for treatment of a per-

sistent *headache*, which had existed for seven months. The headache was confined to the occipital and frontal regions; was greatly increased by the patient assuming the recumbent posture. There was absence of vertigo. The urine was slightly albuminous, and having a sp. g. of 1010. The heart was somewhat hypertrophied, with a systolic murmur, most distinct at the apex. Patient had prominent vessels. The following treatment was prescribed:

R.—Acid. hydrobromici dilu..... f3ss.
S. Ter die.

R.—Tr. aconiti..... gtt. ij.
Tr. verat. viridi..... gtt. iij.
Tr. zingiberis..... gtt. v.

M.—S. At night.

In a case of *ichthyosis*, the patient was recommended to take baths frequently; to use, locally, grease in some form, as lard, goose grease, or vaseline; the use of the following prescription:

R.—Sulphur..... f3j.
Adipis..... f3j.
Acidi salicylici..... f3ij.

M.—Sig. Apply after bathing.

Prof. Bartholow gave the class the following prescription, to be used as a purgative:

R.—Ext. colocynthis comp..... f3j.
Resinæ podophylli..... gr. ij.
Ext. belladonnæ..... gr. x.

M.—Ft. in pil. No. xx.

S. One pill, taken at bedtime.

At a recent medical clinic, the following case was presented to the class: A man, aged forty-seven years, giving this history: Violent pain in the epigastrium; great gastric irritability; has vomited blood, bright-red in character; is very much emaciated. Prior to his present condition the patient had been a dyspeptic. The present trouble came on gradually. There was pain on palpitation. Tenderness in the back. A spot of soreness was noted an inch or two to the left of the median line, anteriorly. So far as could be ascertained, there was no tumor present. The patient had slight acid eructations. The tongue was clean; the bowels constipated; the cramps in the stomach recurred every day. After the patient had taken a trial meal, on testing, there was found to be absence of hydrochloric acid in the gastric juice. The following point was made in diagnosis, viz.: In favor of *cancer* was the absence of hydrochloric acid, the age of the patient, the emaciation, and the dyspeptic symptoms. *Ulcer*, by the limited tenderness, especially at the back, the absence of a tumor, cramps after eating, vomiting of red blood. The following treatment was ordered: A diet of milk, to which might be added a little lime water or soda, to render it alkaline. Patient to rest in the recumbent posture. Give the stomach absolute rest, as near as possible—best accomplished by nutritious enemata per rectum—and internally:

R.—Argenti oxidi..... gr. ss.
Opil pulv. gr. ss.

M.—Ft. in pil.

S. Ter die.

For the cramps:

R.—Morphinæ sulph..... gr. ¼.
Given hypodermically.

In a case of *exophthalmic goitre*, associated with anæmia. It was treated with iron, arsenic, and a nutritious diet, to act upon the circulation; digitalis and strophanthus, combined with rest.

The Times and Register

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CURABILITY OF ACUTE PHTHISIS.

THE direction of public attention toward the subject of phthisis, has prompted McCall Anderson to bring forward his asserted success in the treatment of the acute form of this disease. The agents upon which he relies are the antipyretics, atropine injections, iced cloths to the abdomen, and an energetic employment of the tonics and reconstructives. By the use of these remedies he succeeds so well that he has learned to look upon acute phthisis as more readily cured than the chronic forms. This is not specially new, as all these points were plainly stated in a paper to be found in a volume of "Clinical Medicine," published by Macmillan & Co., London, in 1877. It is exceedingly interesting to note that this distinguished clinical teacher holds the same views as to the curability of acute phthisis, after thirteen years' further experience.

It is somewhat significant, however, that though he described three cases in his former paper, he has only seven to report at the present. Either acute phthisis is very rare in Glasgow, or the curable form seldom proves as amenable to treatment as one could wish.

To explain the occasional curability of acute, or galloping consumption, one must go back much farther than Robert Koch. Niemeyer divides these cases into two groups; the first being an acute broncho-pulmonary catarrh, the other an acute general tubercular infection of the pulmonary tract. The former runs the more acute course, and is also amenable to treatment, in that it is pathologically a simple inflammation. It would be interesting to know if McCall Anderson has reported any cases as cured in which he had demonstrated the presence of the tubercle bacilli in the sputa.

In 1880 the writer had his only opportunity to put the method of treatment described by Anderson to a trial. The case was that of a young girl who worked in a paper-box factory. The work-room was not

ventilated, and nearly one hundred girls worked in it. Among these several consumptives were always to be found; and as all expectorated upon the floor, it is probable that the air of the room at all times was laden with tubercle bacilli. The girl had been ill for some weeks when the writer first saw her. She then had an axillary temperature of $105^{\circ}+$, presented the characteristic symptoms of acute phthisis, and for some time had been unable to rest except in a chair, leaning forward with her head on a bureau.

She was put upon the treatment recommended by Anderson in the work above mentioned; in all particulars. The iced cloths, especially, gave so much relief that a description of their application may be given with advantage: The sheets and blankets were folded double, so that the abdomen could be exposed quickly without uncovering any other part of her body. A folded towel was wrung out of ice water and laid upon a block of ice. When cold enough, the towel was applied to the girl's abdomen, covered with dry flannel, and the blankets quickly replaced. In one minute the blankets were opened, the towel whipped off, and a fresh one substituted. This was continued for half an hour, in which time thirty cold cloths had been applied. Then the dry flannels were applied, and the patient rested for an hour and a half, when the application was repeated. This was continued until the temperature fell below 100° , and resumed whenever it rose about that point. Great care was exercised that the clothing should not be wet, or the body exposed a moment longer than was necessary.

The girl died in six weeks; but to the hour of her death she invoked blessings on the treatment that gave her so much relief, and enabled her to lie down in her bed and to sleep. Had the case not been tubercular a better result might have been obtained.

In a case of chronic peritonitis, believed to be tubercular, the same treatment was followed by the best results; the patient got well, and as she is still living, the diagnosis has never been confirmed.

Now that the microscope enables us to accurately diagnose the tubercular and non-tubercular diseases of the lungs, renewed interest is felt in the treatment of both groups. Especially is this the case, in view of the latest reports upon the use of Kochine in pulmonary tuberculosis. We are told that the excessive febrile reaction following the injections can be so successfully held in check by the antipyretic agents now in use, that there is reason to hope that the lymph may prove curative in pulmonary cases. Should this prove true, the importance of the remedy will be instantly elevated to something near its popular valuation.

HENRY C. LEA has given the University of Pennsylvania \$50,000 for the erection of a hygienic laboratory. The plans have been revised by John S. Billings, and as he obtained some ideas during a visit to Europe, and has embodied them in the plans, the building will be the finest hygienic structure in the world. Lecture-rooms, museums, bacteriological and photographic-rooms, a crematory, separate building for animals, etc., are to be provided.

Annotations.

THE *University Medical Journal* departs from its original programme and from its proper sphere as a medical magazine, to enter the field of the weeklies as purveyors of medical news. Men look to the latter class as the news journals of the profession, while the monthlies serve better the purpose of publishing lengthy original papers. As a purvey of news the monthly is not a success; as the *University* will soon discover. The change in the *American Journal of Medical Sciences* in the same direction has been a failure; many of its old readers regretting the change.

CYNOBEX HEBETIS.

SPEAKING of the barking cough of puberty Sir Andrew Clark (*Lancet*) remarks that all the cases brought to him were plainly over-fed, and used alcohol. Improvement had almost always followed the enforcement of a liberal but simple dietary, in three or four meals a day, abstinence from alcohol, cold or tepid sponging, warm but not too warm clothing, active out-door exercise, early hours, and general discipline. Locally, the glycerine of borax with oxychloride of bismuth and morphine; or the same with cocaine instead of morphine. These should be brushed over the whole interior of the throat after each meal and at bedtime. Internally, he recommends the syrup of bromide of quinine and iron with arsenic; or pills of reduced iron, zinc valerianate, belladonna and nux.

LEPROSY IN THE WEST INDIES.

FROM *The Lazaretto*, published at St. Kitts, West Indies, we learn that a decided effort is being made to segregate the lepers, and thus put a stop to that terrible malady, which prevails in some of the most beautiful islands in the West Indies. No single thing stands so much in the way of the prosperity of these islands. Visitors cannot be expected to look on leprosy with the indifference of those who have been all their lives familiar with it. In Dr. Hutchinson's letters he has given what our readers want—a plain, unvarnished tale; telling where this and other diseases are to be met, and giving the drawbacks to West Indian travel, instead of following the usual custom of travelers, depicting the places they visit as earthly paradises, and leaving visitors to find out the reverse by sad experience.

Dr. Hutchinson's papers will soon be republished in book form; and physicians who contemplate sending patients to the West Indies will find in it just the information they require.

TESTING DRINKING WATER.

THE inventor of a handy and reliable mode of testing the purity of water would deserve the thanks of the community. It is to be regretted that the simple test of adding a little sugar, which has lately been advocated and which is said to cause any organic matter in the water to appear after awhile in the form of black specks, is of no value whatever, practically. The misconception about the merit of this test has probably arisen from the fact that it was formerly used for the detection of a fungus supposed to be peculiar to sewage. A bottle containing sugared water was placed in a strong light and kept at a temperature of 80 degrees Fahrenheit for several hours. The turbidity thus developed was found under the

microscope to consist of small spherical cells. Heisch believed that these evidenced the contamination of the water by sewage, but Franklin showed that the spores of this particular fungus were present in all waters that had been even momentarily exposed to the air, and that their development was due simply to the presence of phosphates in the water. The addition of even a minute trace of any phosphate was sufficient to cause such development in any water under the conditions stated.

GERMAN SCHOOL REFORM.

ALL Germany, from the Emperor down to the humblest of his subjects, is stirred up just now on the subject of the reform of the gymnasia. Acting upon the principle that "old things are passed away, all things are become new," teachers and scholars, professional and business men, have begun an attack on the old order of studies, which is very interesting, and refreshing, too.

When, for instance, we see on the list of those who claim that there is too great a preponderance of the classics in the gymnasium course, so distinguished a name as that of Prof. Gucken, of Jena, who is one of the finest classical scholars in Germany, we realize that the discussion on this subject means something. The Emperor, who is in no way behind the scholars of his realm in this matter, has called a conference of about forty of the most distinguished men representing all branches of life and thought, and including such men as Helmholtz, Virchow, and Zeller, to consider some plan of reform in this direction. The address of the Emperor to this body is terse and to the point, and covers the ground very well. One sentence from it, which is all for which we have room, points to a new and a stronger Germany. He says: "Men must not look at the world through spectacles, but with their own eyes; and above all, they must see with their own eyes and enjoy what is nearest to them all, their fatherland." Sound sense, if it be not carried too far, to the exclusion of all interest in all else save the fatherland.

ELECTROLYSIS OF ANIMAL TISSUES.

A PAPER on this subject is being published in a volume of *Memoirs* from the Physiological Laboratory of the Owens College, Manchester. A preliminary account of part of the work was given in the *Proceedings* of the Royal Society of Edinburgh, June 18, 1888, p. 399, and a short description of later results at a meeting of the Physiological Society in March last. I wish to give here a brief summary of the work and of the chief results. This paper was restricted to the chemico-physical changes, the physiological effects being left for a future communication. There were two preliminary questions to settle. 1. How much of the conduction in animal tissues is electrolytic? 2. What are the electrolytes? I have found that practically the whole of the conduction is electrolytic, and that the electrolytes are chiefly the inorganic constituents. When a tissue is electrolyzed, almost the whole of the current passes by the salts. The changes produced in the proteids must therefore be brought about by secondary electrolytic actions. These changes were investigated (1) in simple proteid solutions, (2) in animal liquids, (3) in isolated tissues, and (4) in living animals.

1. In simple proteid solutions the effects vary to some extent with the current density (this was calcu-

lated from the intensity measured in milliampères.) But in the solutions used alkali-albumin is always formed at the cathode, and acid-albumin at the anode, while in solutions of coagulable proteids there is also coagulation of the latter. With a strong current the proportion of coagulated proteid to acid-albumin formed at the anode is greater than with a weak current.

2. Blood, bile, and urine were the chief animal liquids investigated—blood for its own sake; bile and urine merely to illustrate the action of the current on complex solutions. Blood serum, entire defibrinated blood, and pure hæmoglobin solutions were used. There was no indication whatever that hæmoglobin or any derivative of it acts the part of an iron. At the anode in a pure hæmoglobin solution the reaction becomes acid, and acid hæmatin is formed, which remains partly in solution and is partly thrown down, the liquid becoming less deeply colored. When the current is strong or long-continued the hæmatin suffers further change, and is decolorized apparently by the nascent oxygen or chlorine set free. If a reducing agent is present at the anode, the hæmoglobin is not affected there by the electrolysis. With proper adjustment of the strength of the current methæmoglobin may be seen to appear at the anode before acid-hæmatin, and they may be found together there. At the cathode alkali-hæmatin is formed; but its spectrum does not appear as soon as that of acid-hæmatin at the anode. In entire blood the changes in the hæmoglobin were similar to those described. The proteids of the serum and the corpuscles were partly coagulated at the positive pole. At the cathode they were more or less completely changed into alkali-albumin, according to the strength and time of flow of the current.

3. Striped muscle was the chief solid tissue observed. Microscopically, great changes were found in the fibres, the nuclei becoming very prominent in the parts near the anode, and the sarcous substance granular, the general appearance suggesting the action of a dilute acid, while at the cathode the fibres became more homogeneous than before. The striation was impaired. The chief chemical changes in the proteids were an increase in the neutralization precipitate of the watery extract, and a corresponding decrease in the globulin at the cathode. At the anode the neutralization precipitate was increased, but not as much as at the cathode. On the other hand, the globulin extract was more than correspondingly diminished, doubtless because part of the proteid was coagulated. The effect of electrolysis on the salts of muscle was studied by estimating the ash. Striking changes in the distribution of the salts were produced—changes sufficient, if produced within the body, to modify nutrition profoundly.

4. Experiments on electrolysis of tissues within the body (frogs and rabbits.)

The effects of the current are discussed under four heads: 1. The chemical action of the poles. 2. The effect of the changes in the distribution of the salts (actual or potential). 3. The changes of temperature produced by the current. 4. The cataphoric action of the current. The antiseptic action of the current was studied in the case of ordinary putrefactive organisms, and it was shown that it was chiefly, if not entirely, around the anode that this action takes place. This is in accordance with the observations of Apostoli on charbon bacilli, published since my paper was written, and it explains the observations of Cohn and Mendelssohn on the effect of strong current on micrococci. An attempt is made in the paper to con-

nect our knowledge of the action of electrolysis with one or two of its applications in practical surgery and gynaecology.—*Lancet*.

Letters to the Editor.

A PRIMITIVE CÆSAREAN SECTION.

THERE was a Cæsarean section performed by a quack (John Hoge, by name), along in the fifties, in the county of Bland, Va., under peculiar circumstances. John Hoge never attended medical lectures anywhere. The only knowledge he had of anatomy was gained from his book. The section was performed upon a woman who had given birth to children before the operation without assistance, and in like manner afterwards. The details of the operation were not divulged by the operator; nor did he give the indications, as he understood them, for operative procedure. I think you will agree with me that this is an unique case.

J. B. BASKERVILLE, M.D.

Book Notices.

CYCLOPEDIA OF THE DISEASES OF CHILDREN. Edited by J. M. KEATING, M.D. J. B. Lippincott Co.

Volume IV, which lies before us, gives every evidence of the high order of excellence that characterized its predecessors, both as regards the arrangements or natural subdivisions into which the subjects discussed are made to fall, and the great value of the numerous separate articles.

In Part I are discussed, simply and practically, "Diseases of the Ear," by Dr. C. H. Burnett. The author's advice concerning the proper method of examining and syringing the ears of children is sound. It is quite gratifying to note that it is "A mistake to regard wax in the ear as dirt, and a greater error to make attempts at its removal from the auditory canal. Some wax is needed for the protection of the ear, and the superfluous wax will roll out into the concha every day or two, and can be easily removed from that part of the ear. If, however, a swab or any form of spoon is used for removing wax from the canal, as much as, or, perhaps, more than is removed by such implements, will be pushed into the canal and gradually packed down upon the drum membrane." Would that all mothers and others having the care of children in charge could be made acquainted with the foregoing important practical facts.

Part II is devoted to the eye, and is opened by a masterly article from the pen of Dr. G. E. de Schweinitz on "Affections of the Eyelids." Drs. C. S. Turnbull and G. M. Gould discuss jointly "Diseases of the Eye" quite ably, though, perhaps, rather too briefly. Dr. Charles A. Oliver's article on "Ophthalmology" is characterized throughout by great clearness and thoroughness. "Physical Development" receives at the hands of Drs. J. M. Keating and J. K. Young that careful and exhaustive treatment which the subject so richly deserves. It embraces a consideration of such subjects as "Physical Exercise," "Training," "Quantity and Varieties of Food," etc.

Dr. W. A. Edwards discourses on the subject of "Massage;" Dr. J. Wellington Byers on "Prophy-

laxis of Disease in Children," and Dr. D. F. Lincoln on the all-important question of "School Hygiene."

Part IV, "Diseases of the Nervous System," contains many contributions of great practical and scientific worth, and all from the pens of well-known writers on nervous disorders. The temptation to make elaborate mention of all of the subjects treated under this head is very great, but the limits of this review forbid such a course.

Surely the final volume of Keating's Cyclopaedia of Diseases of Children is a most worthy conclusion of a highly creditable serial publication. J. M. A.

Pamphlets.

Abnormal Intra-Thoracic Air-Pressures and Their Treatment. Address at the seventh annual meeting of the American Climatological Association, by Charles Denison, A.M., M.D., of Denver, Colo., President.

The Medical Digest.

BLODGETT reports a case of acute pneumonia successfully treated by the inhalation of pure oxygen.

CREOLIN IN ERYSIPELAS AND ECZEMA.—Rothe has used in the treatment of erysipelas a creolin ointment containing creolin 1.5, cret. præp. axung porc. āā 15.0, ol. menth. pip. gtt. v. This is spread in the thickness of the blade of a knife over the diseased parts twice or three times a day, a thin layer of cotton wool being applied as a covering. In from twelve to twenty four hours improvement was always apparent, and the disease was cured in three or four days. The same ointment also did good service in a case of weeping eczema of the face, as also in several cases of eczema in children. A patient suffering from scabies was treated with a thorough washing with soft soap and inunction of this ointment, with such a decided effect that Dr. Rothe considers creolin to be undoubtedly a specific for the disease.

—*Brit. Med. Jour.*

TREATMENT OF DYSENTERY BY IRRIGATION OF LOWER BOWELS.—Dr. Koritin reports fifteen cases of dysentery cured by irrigation of the lower bowels. He had nine cases of the diphtheritic form of dysentery and six of the catarrhal (according to Virchow's division of the disease). In two diphtheritic cases a solution of carbolic acid \mathfrak{zj} to six pounds of water was used; and in seven, gr. xx to six pounds of water. In the catarrhal form: in two cases gr. xx; in one, gr. x to six pounds of water; and in three other cases pure water was used. The author, after fully describing each case, concludes his interesting article, saying that though he has used besides the irrigation some of the popular internal and external remedies, nevertheless, he thinks that the course of the disease, as given in his description, was modified by the irrigation.

A CASE OF ŒSOPHAGOTOMY FOR THE REMOVAL OF A FOREIGN BODY.—Dr. E. P. Grubert reports a case of a cook who, while in the act of eating meat, in fear of being detected by the approach of his superior swallowed a bone with the meat. Œsophagotomy was performed on the third day, and the patient was discharged in twenty-four days. Prof. Gross in 1886 collected sixty-eight cases, and (*Centralblatt für Chirurgie*, 1890, N. 21) brought the number to eighty-two.

Dr. Grubert put in stitches, in which he differs from Dr. Southan, who does not; comparing the results, the method of Dr. Grubert is the best. Dr. Southan kept his patients for two weeks on nutritive enemata, and for another week he fed them by a gastric tube, and discharged his patients with a fistulæ; in the case of Dr. Grubert, the patient could take liquid food on the fifth day, and solid food on the thirteenth.—*Vratch*, No. 42, 1890.

EPILEPSY FROM INJURY TO THE HEAD CURED BY TREPHINING.—This was the case of a man, aged about forty years, who received an injury to his head in November, 1884, by which he was stunned. In June, 1888, nearly four years after the injury, he began to have fits, which quickly became frequent and severe. Medical treatment having done no good, and the site of the injury being tender to the touch, it was decided to operate, and accordingly in July of the same year Mr. Miller trephined, removing at the operation three circles of bone. The patient had been having between forty and fifty fits daily before operation, but immediately after they gradually diminished in number and severity, and disappeared altogether six weeks after operation. He was sent home in September, 1888, and from then till now has had only one fit, which was said to have been brought on by grief on the occasion of the death of one of his children.—*Med. Press*.

ABSORBING POWER OF UTERUS AND VAGINA.—Landau, *Berliner Klin. Wochenschrift*, has found from experience that the vaginal mucous membrane has but a feeble absorbing power, whilst the uterine mucous membrane possesses that power to a very high degree. This fact is of extreme importance in gynæcology, as strongly medicated tampons may fail to act if inserted into the vagina, whilst if passed into the uterus they may set up grave complications. The vaginal mucous membrane is really skin, and becomes true dry skin in cases of prolapse. The free surface of the cervix has hardly any power of absorption. Dr. Landau demonstrates from cases how different it is with the endometrium. After the introduction of a solid ten per cent. preparation of resorcine into a uterus, severe and long standing uterine colic was set up. The introduction of a one per cent. cocaine compound caused the pains to cease. The cocaine was absorbed and by paralyzing the sensory nerves it produced anæsthesia.—*British Medical Journal*.

CREOLIN: ANTISEPTIC OR TOXIC?—Some important evidence as to the action of creolin on the human subject may be gathered from a thesis on that compound published at Breslau during the course of this year. Dr. Bitter, the author, notes that creolin has already been used in more than 2,000 midwifery cases at Breslau. As appears to be the case with every new compound of the kind, the results, according to Drs. Born and Bitter, are most encouraging. In four of the midwifery cases, however, symptoms of poisoning occurred during the administration of a course of creolin injections. Three of the patients were suddenly seized with feelings of restlessness, anxiety, nausea, darkness before the eyes, and a tendency to syncope. The most peculiar feature in these cases was a strong flavor of tea or smoke in the mouth, of which all the patients complained: This symptom lasted for a long time, whilst the nausea, etc., disappeared immediately upon the discontinuance of the vaginal injections of creolin. The fourth case was more severe; the patient suffered from great restless-

ness and prostration for several days after the injections were left off. About thirty-six hours after the beginning of the attack the urine, drawn off with the catheter, was very dark and strongly albuminous. Within a few days these symptoms of acute nephritis disappeared. Dr. Bitter advocates creolin as superior to other disinfectants on account of its "relatively" (*sic*) non-poisonous qualities, its excellence as a deodorizer, and its blandness when applied to skin, mucous membranes, and wounds. It neither dries the vaginal mucosa nor causes any contraction of the canal. Creolin has no special hæmostatic action. Dr. Bitter finds that there are disadvantages in creolin, as the emulsions employed for injections are opaque, and the preparation of creolin usually on sale appears to be unstable.—*Brit. Med. Jour.*

RESORCINE IN THE TREATMENT OF WOUNDS INFECTED AT POST-MORTEM EXAMINATIONS.—The deaths recently of several young practitioners in Germany, in consequence of blood poisoning following the receipt of slight wounds while making post-mortem examinations has, according to a foreign contemporary, drawn attention to the question of the best means of treating these lesions. In this connection, Audeer, of Munich, has had good success with resorcine. Of all the antiseptics resorcine is, in his opinion, the most efficacious when used in these cases of blood poisoning. It is applied in the form of an ointment to the infected wound in a strength varying from five to fifty per cent. Vaseline is usually the excipient employed, but any other will do as well. Strong ointments of resorcine have a caustic action upon the tissues, and this being so, it is best to begin with the milder forms, say a half per cent., in order to obtain some anæsthesia of the wound. Then some hours afterwards a strength of from twenty to fifty per cent. may be applied, and the part may be covered with cotton wool. By this plan recovery rapidly ensues without pain, some desquamation of the part subsequently following.—*Medical Press and Circular.*

SURGICAL BACTERIOLOGY.—The local bacterial complications of wounds (such as have been mentioned) may pass off by nature's own efforts or aided by medical or surgical means. They are individually specific in their nature and somewhat independent in their localization, though, as we have seen, related from an etiological standpoint. Microbes of the same order, and with properties very similar, have independent pathogenic powers resulting in the lesions found in each disease locally. But they may be found associated and thus complicating still more a wound, and again, as stated, they may have the company of germs ordinarily harmless, which find in the diseased tissues fit soil for their growth and multiplication, thereby aggravating the primary complications.

Pyæmia and septicæmia are the results of local bacterial complications. At first, there may be only a local abscess, or suppuration of some character or other in a wound; both are the result of germ life. But soon fever appears, there is sub-delirium, prostration, and various symptoms indicating general infection or intoxication of the system. It is partly the result of migration of the septic microbes in some important organs, perhaps their generalization in the circulation, and it indicates besides and chiefly the general poisoning by the toxic products generated by them.—McAlester, *Bacteriological World.*

MASSAGE IN CHRONIC ULCERS.—In Aden one has to treat numbers of ulcers of feet and legs, some quite

incurable, probably dependent mainly for their origin on the want of vegetables and animal food, though few of them are absolutely scorbutic. The following case illustrates the extremely varied nature of the means that have to be adopted: A patient slightly scorbutic had an ulcer two inches long and one and one-half inches broad on the dorsum of his foot. The signs of scurvy soon cleared up; but, in spite of the most varied dressings, elevation, poultices, and free, deep incisions, after two or three months' treatment, the ulcer remained of much the same size. There was a broad, dense margin of cicatricial tissue, and, outside this, the remaining skin of the dorsum was smooth, pigmented, and immovable on the underlying structures. Then we started massage for half an hour, twice daily, with simple dressings. The patient was made to knead and rub the surrounding skin, so as to soften and loosen it. The ulcer at once began to improve—at first rapidly, and afterward more slowly—and now, in little over a month, it has quite healed, though the skin is still pigmented, and rather glossy and bound down. This seems such a common-sense mode of proceeding as to be scarcely worth mentioning; yet it is one that is very apt to be overlooked, and shows the need of departures from regular routine practice. In very large ulcers of the leg which have partly healed, and so become surrounded by a more or less dense and extensive superficial cicatrix, this manipulation has been of much benefit, softening the tissues, and improving the defective blood supply.—*Brit. Med. Jour.*

ABSCESS OF THE LARYNX.—Abscess of the larynx is most frequently located at the base of the epiglottis. In Mackenzie's cases six were at the base of the epiglottis, four on one of the ventricular bands, and in three instances one of the aryepiglottic folds was the seat of the disease. Although it may occur in any part of the larynx, these are the most frequent. In a case reported by Rühle the abscess formed externally and was evacuated by incision through the skin.

The constitutional symptoms are such as one would expect to find in the formation of an abscess in any part of the body: general malaise, chills or chilly sensations, followed by increased temperature, headaches, loss of appetite, etc.

The local symptoms begin with hoarseness and dryness of the throat, pain, especially on deglutition, and the voice tires very quickly; cough of a dry rasping character, and there may or may not be small quantities of mucus expectorated. There may be a noticeable swelling externally, depending on the size and location of the tumor; considerable pain can generally be elicited by pressure around the larynx, externally, and if the abscess is sufficiently developed, fluctuation may be obtained. If these be present they are of great aid in clearing up the diagnosis.

Dyspnoea is generally an early and prominent symptom, especially in children, the amount of dyspnoea being dependent upon the situation and size of the swelling, although in the adult, as in my own case, an abscess of small size may produce absolutely no difficulty in respiration. So much for the symptomatology as it occurs in adults.

—*Cincinnati Lancet-Clinic.*

GANGRENE AFTER TYPHOID FEVER.—Fred. P—, aged eighteen years, a brickmaker, fair and spare, with family history of phthisis; heart normal. The onset was sudden and influenza-like, with temperature occasionally reaching 105°F.; but after the third week, when he was removed to the Infectious

Hospital, it never exceeded 102° , and at the end of the fifth week of the fever it became normal. There was no excessive diarrhoea or hemorrhage, but the patient was very asthenic and torpid. The convalescence was slow, with disinclination for exertion, the feet and legs being œdematous. At the third week of convalescence the dorsum of the left foot became first purple, then mottled and gangrenous, and extremely sensitive. Perchloride of iron and quinine were given, and boric fomentations applied to the foot and leg. In a few days a line of demarcation formed, enclosing an area of about twelve square inches. It was then poulticed with linseed-meal and carbolic oil. The slough came away in a week, exposing the tendons and muscles; this had nearly granulated up when the patient was discharged in the ninth week of convalescence. In considering the pathology of the case, the œdema appears due to cardiac weakness, as there were no varicose veins. The gradual onset points rather to thrombosis than to embolism of the anterior tibial artery, which is also rendered more probable by the fact of the patient being an amateur sprinter, the artery being supported by muscles until it reaches the ankle-joint, where it would be exposed to injury and strain, and where the occlusion most likely occurred. There was no sudden pain in the limb, such as would be caused by the impaction of an embolus.—*Lancet*.

TURNING TWELVE HOURS AFTER RUPTURE OF MEMBRANES.—The following is a report of a case I have recently attended which I think possesses some features of interest:

One morning recently, soon after five o'clock, I was called to a case about two miles from my house. The husband, who brought the message, said his wife had been in labor since early in the afternoon of the previous day, that the midwife had been with her all night, and now had sent him for me, as it was a "medical case." He added that a part of the child had been born ever since five o'clock of the previous afternoon. I attended as soon as possible, and, on arrival, found the woman to be a multipara, aged forty-two, and on examination found the hand and arm of a foetus protruding from the vulva. The membranes had ruptured about five in the afternoon, and almost immediately the hand was protruded from the vagina, and shortly afterwards the arm as far as the elbow-joint. The woman's strength seemed very well maintained, and the pains had not been very frequent or strong through the night, so I determined to make an attempt to push up the presenting arm and turn. This I was unable to do without chloroform, the uterus becoming strongly contracted round the child as soon as my hand entered it. However, on putting the woman thoroughly under chloroform, after some difficulty and perseverance, I was able to reach a foot and bring it down. Delivery was accomplished in about twenty minutes, there being some delay as the head passed through the brim and outlet. The child was a very large one, and when I saw its proportions I was surprised at the comparative ease with which turning was accomplished after the membranes had been ruptured so long. It was stillborn, and its position in the uterus was abdomino-anterior. The mother is making an excellent recovery. I took care to impress upon the midwife not to delay in sending another time if such a case should come under her notice.—*Lancet*.

THE TREATMENT OF CHRONIC RHEUMATISM.—Chronic rheumatism, including chronic articular

rheumatism, and all varieties of muscular rheumatism under that heading, is a very troublesome complaint, but a very important one, owing to the large number of people, especially amongst the poorer classes, who suffer from it. The treatment is, therefore, one to be carefully considered; and in this short article I propose to give a brief *resumé* of the methods of treatment I have found most beneficial.

The clothing of the patient must be attended to. It is essential that flannel should be worn next to the skin. The Jäger underclothing is very good. The diet should be nourishing, and, if stimulants are required, a little whiskey is, perhaps, the best. The internal treatment adopted is very various. I have found the following prescriptions most useful:

R.—Pot. bicarb. gr. xv.
Pot. iod. gr. iij.
Tr. hyoscyam. ℥ x.
Spt. chlorof. ℥ v.
Inf. gentian. ʒ ss.

M.—S. Ft. haustus, ter in die.

In strong adults, a few drops of vin. colchici is beneficial. I have seen good results from three-grain doses of salicylate of soda three times daily. Guaiacum is useful in some cases.

As the patient progresses, a mixture of the following may be given:

R.—Ferri et ammon. cit. gr. x.
Pot. iod. gr. iij.
Pot. bicarb. gr. xij.
Spt. chlorof. ℥ v.
Aque pimentæ. ʒ j.

M.—S. Ter in die.

The syrup ferri iodidi answers well in some cases. If there be much pain, opiates, especially given subcutaneously, are often of marvelous efficacy. If the patient is debilitated, cod-liver oil is useful.

—Staple, *Hospital Gazette*.

PATHOLOGY OF DIPHTHERIA.—No consideration of the pathology of diphtheria would be complete that failed to enter briefly upon the complications and sequelæ. Of these, the most noteworthy, the most distressing to the patient, the most embarrassing to the physician, and the most serious in its direct results, is the so-called diphtheritic paralysis. Except that it occurs within a reasonably short time after diphtheria, and must be made dependent upon the action of poisons generated during the continuance of that morbid process, there is nothing, absolutely nothing, peculiar or idiopathic in this paralysis. The cause of the diphtheritic paralysis, omitting the paralyzes occurring in the fauces, would seem to be, in each and every case, a polio-myelitis anterior of irregular distribution, with conservative morbid changes in the nerve fibers of the anterior roots, is conclusively shown by Dijerine, Abercrombie and Kidd. There is thus the closest resemblance between this disease and the acute essential paralysis of children. In both conditions, the cause of the paralytic symptoms is an inflammation of low grade, involving the anterior bones of gray matter of the spinal cord. This leads to swelling, degeneration and disappearance of ganglion cells, with fatty and granular degeneration of the nerve fibres connected with these. Generally there follows a slow, but more or less perfect, restitution; save in those instances in which the groups of ganglion cells, whose fibers form the phrenic nerve, participate in the inflammation. Here death ensues early in the course of the paralysis from the embarrassment of respiration.

Of very great interest in this day of comparative pathology is the relation of this disease in the human subject to similar affections in lower animals. Epidemics of a process very similar to diphtheria have been observed in calves, pigeons, and poultry. Tredelenburg was the first to attempt the inoculation of diphtheritic membrane from patients upon rabbits and pigeons. Of his sixty-eight experiments eleven were successful, eight upon rabbits and three upon pigeons. An exquisitely contagious form of diphtheria has been found in calves, first extensively described by Dademan, in 1876. This he regarded as identical with diphtheria in the human subject, as the child of a coachman, living on the place where the epidemic occurred, had died of diphtheria a short time previously, and had been buried on the place. This point is one which intimately concerns the officers of public health, and should play an important rôle in prophylaxis and treatment. It argues strongly for the necessity of a better acquaintance with comparative pathology.—Eichberg, *Weekly Medical Review*.

CACTUS GRANDIFLORUS AS A SUBSTITUTE FOR DIGITALIS.—It seems to us as highly improper to speak of a drug "as a substitute for" another. If our readers will examine the effects produced by cactus and digitalis respectively, it will be readily seen that the one cannot be substituted for the other upon any but theoretical grounds.

Cactus acts especially upon the circular fibers of the heart and arteries, causing irritability, hyperæsthesia, neuralgia, spasm and palpitation. This condition is characterized subjectively by a sensation of constriction which is especially marked with this drug, by sharp stitch-like pains, by dyspnoea and by palpitation.

Objectively we may find endocardial murmurs, excessive impulse or irregularity of the heart's action. Cactus resembles digitalis in respect only to its power of producing heart-failure, and this result is due to the secondary effect in the case of both.

Cactus will prove palliative in cases of hypertrophy of the heart, with the characteristic constriction and dilatation not predominant, while digitalis is more likely to palliate in cases where dilatation is predominant and the pulse shows feebleness.

Cactus resembles aconite in its effect upon the heart much more than it does digitalis.

Cactus is much more likely to be of service in angina pectoris than is digitalis.

So far as we know, cactus has little influence upon the renal secretion, while digitalis has a profound effect in appropriate cases.

Cactus has copious expectoration, oppression of breathing on ascending, cannot assume the horizontal position, and all its conditions are marked by that feeling of *constriction* which is so characteristic.

Digitalis seems to act upon all the muscular fibers alike, but the drug is not equal to producing carditis or pericarditis.—Hills, *N. Y. Med. Times*.

TREATMENT OF DYSMENORRHOEA.—The affection is generally declared incurable. Drugs have been tried and discarded, local treatment has failed. Electricity, if successful, would have been oftener practised. It seems to me, however, that one or two words still remain to be said on this matter. Treatment may be directed to two conditions—(a) the morbid uterine mucous membrane; (b) the pain. The pain, as I have endeavored to show, is probably uterine colic, and this, again, is the cause of another variety of dysmenorrhœa—spasmodic, neuralgic, me-

chanical, obstructive dysmenorrhœa. The treatment which often relieves the pain, at any rate temporarily, in both is dilatation, of which I shall speak elsewhere. The pain itself is not, in my opinion, merely an annoyance to the patient, for, taking pain in this case as equivalent to colic, colic is bad for the uterus; it is associated with irritation, the intense contractions lead to hypertrophy in many cases, and the irritation of the uterus may lead to its spreading upwards to the uterine appendages, where its treatment as inflammation is far more difficult. Therefore we should, if possible, treat the uterine colic. Measures to increase the flow, such as hot foot baths, are less indicated in this case, for the flow is generally profuse and the pain is not immediately relieved by it, as it generally is in spasmodic dysmenorrhœa. Among drugs may be mentioned guaiacum and sulphur, antipyrin (cautiously used, and probably with a diffusible stimulant), and an old remedy which has certainly, in these days of experimental pharmacology, been unjustly discarded—namely, castoreum. With regard to local measures, temporary relief has followed scraping the uterus shortly before a menstrual period. I should feel tempted to try this, not once, but repeatedly, with an irrigating curette, flushed with antiseptic solution, preceded by dilatation. Division of the cervix has given temporary relief. Its action is, in my opinion, to relieve the colic. In my opinion, also, it should never be done. Removal of the appendages has been practised; in one case (Mr. Lawson Tait's) with success. The other side of the picture is furnished by Mr. Doran, who refers to a case followed by intense dysmenorrhœa. The treatment of membranous dysmenorrhœa certainly is a most unhappy problem; not even pregnancy, going to full time, cures it. If it is to be cured, and if complications are to be avoided, our attempts must be made early.—Champneys, *Lancet*.

THE INFLUENCE OF DEEP BREATHING UPON THE VITAL CAPACITY OF THE LUNGS.—Dr. I. P. Timofeyer conducted some valuable experiments in reference to the influence of deep inspirations upon the vital capacity of the lungs, the power of inspiration, expiration and distension of the walls of the chest. The subjects of his experiments were twenty-three young soldiers, from twenty-two to twenty-four years of age, all healthy and robust. For this purpose a large room was selected, the windows of which were constantly kept open; the floor was of asphalt, and without furniture. A preliminary physical examination was made as to the internal organs, state of health, previous diseases, etc.; the measurements of chest in expiration and inspiration were taken, also the weight and height, and length of spinal column. After three successive days of measurement, the experiments with deep inspirations, with the spirometer of Hutchinson, and pneumomatometer of Maldenburgh, commenced. The course of the experiments lasted three weeks. They commenced with fifty inspiration, and in four days reached one hundred inspirations in an hour and a half. The inspirations and expirations lasted five seconds, and a pause of ten seconds, so that in one minute no more than three inspirations were made.

The following are the results:

1. The vital capacity in all cases, without an exception, increased by 200–500 cc.; the average increase was 328 cc., or 7.15 per cent. of the vital capacity of the lungs previous to beginning of experiments.

2. The power of the inspiration has increased by 12-84 mm.; the average 36.9 mm., or 33 per cent. against the state previous to experimentation

3. The power of expiration has increased by 26-90 mm.; average 62.9 mm., or 45.2 per cent. as against the state previous to experiment.

4. The circumference of the chest in deep inspiration increased by 1-3 cm.; average 1.609 cm.

5. The circumference in deep expiration has remained in several cases in *statu quo*, in the majority of cases, however, was diminished by 0.5-3 cm., an average of 1.65 cm.

6. In consequence of the latter two measurements the expansive power of the chest has increased by 1-55 cm.; average increase 3.3 cm., or 52 per cent. as against the expansive power previous to experiments.

POST-PARTUM LOSS OF BLOOD THE RESULT OF CONSERVATIVE DESIGN.—Of a total of thirty tabulated successive cases of parturition, the absolute length of funis ranged from fifteen to thirty-six inches, average twenty-two and one-half inches. There were seventeen of the thirty of a length of twenty-two inches or more, and thirteen under that length. In seven of the thirty cases there were one or more coils about the child's neck, in five of which the funis exceeded twenty-two inches, and in two was under that measurement. In every case of corded neck the placenta is noted as detached, and also in ten others, in all of which the funis did not exceed twenty-two inches in length, in most of them much under that figure, and in only four was a detached placenta found with a funis exceeding twenty-two inches, the length of which was thirty inches.

Of these thirty tabulated cases, in eight the absolute length of funis was under eighteen inches, and in seven others the cord was accidentally shortened below that length by coils about the child, fifteen in all, or fifty per cent. If, then, we are right that a free length of the cord, not exceeding eighteen inches, will be likely to result in ante partum detachment of the placenta; then in the proportion in which that is the case, we may expect to have free and in some cases even alarming expulsion of blood following the placenta, but the figures show that this danger may attend, even with a free cord, up to twenty-two inches, and hence the proportion of such cases may exceed fifty per cent.

Now, though this may be considered a conservative and protective design in the process of parturition, providing in the process of expulsion of the child for the separation of placenta and completion of labor by its expulsion, and that this design has been carried out in a large proportion of normal labors; that with a funis of normal length, with a normal attachment of placenta at or near the fundus, the strain on the cord and consequent tendency to separation of it from the uterine walls during uterine contraction towards the termination of the second stage with the descent of the foetus has already occasioned a partial separation which may be rendered complete with the complete expulsion of the child, and even in abnormally lengthy cords, the same end being provided for by the motions and evolutions of the embryo, and foetus producing relative shortening by the circumvolutions about the child's neck or body, and it being only in such long cords in which this could be effected, and also by the same provision the dangers of prolapsus of the funis in labor being guarded against. Yet still this design may fail of fulfillment by reason

of an abnormally long cord, not shortened by these coils, or by an abnormally low attachment of placenta or by pathological adhesions of the placenta.

—Christian, *Annals of Gyn. and Pæd.*

IS CONCUSSION OF THE LUNGS A CAUSE OF PNEUMONIA?—During the last six months two cases have been admitted here which raised the above question, asked in the *British Medical Journal* of November 8 by Dr. Fitzgerald Isdell. Both patients were under the care of Dr. Bradbury.

A. F., aged eleven years, was forcibly struck on the left side of the chest with the head of a hatchet. He was perfectly well before the assault, but after crawling home went straight to bed, and in about four hours began to have cough and difficulty in breathing. The sputum became blood stained, and he was found two days later to have the physical signs of pleuro pneumonia of the lower lobes of both lungs, most intense on the left side, where an empyema formed, that was a month later spat up. On admission his temperature was 102°, pulse 112, respirations 54.

F. D., aged twenty-two, severely strained his right side by trying suddenly to prevent the fall of a sack of malt. An hour previously he had eaten a hearty meal, and but for a slight cough and cold of two months' duration, felt perfectly well. Immediately after the accident he had great pain on breathing. Six hours afterwards his temperature was 102°, but the breathing, though painful, was not rapid.

Next day the patient was made miserable by headache and persistent dry irritable cough, which towards evening became accompanied by rusty expectoration. Temperature 102°, respirations 28, pulse 116.

On the third day he had the typical aspect of pneumonia—herpes on the lips, flushed, dusky face, alæ nasi working; respirations 48; pulse 120. Now for the first time were discovered the physical signs of pneumonia at the right base, soon extending to the left side. On the ninth day from the accident he died, and at the necropsy pretty well the whole of both lungs were in the condition of "red hepatitis," the part corresponding to the seat of the injury showing nothing peculiar.

It was remarkable about this case that, in spite of increasing dyspnoea, he would never allow himself to be propped up in bed, but always lay curled up, the picture of misery; one could not help partly attributing his death to his utter loss of "pluck."

—Burton, *Brit. Med. Journal*.

TREATMENT OF DIPHTHERIA BY PEROXIDE OF HYDROGEN.—Peroxide of hydrogen was discovered by Thenard, in 1818, though it remained for Dr. Richardson to call attention to its medical properties in 1855. It is a colorless, tasteless liquid, and when applied to a diseased membrane causes little or no pain, and I know of nothing in the whole materia medica that will dissolve the diphtheritic membrane so quickly and thoroughly, and yet leave the healthy mucous membrane intact. When applied to pus or diseased tissue oxygen is set free, which appears in the shape of gas bubbles, and a frothy effervescing mass is to be seen; this is kept up for two or three minutes. I am in the habit of diluting it 25 per cent. (although it can be used full strength) and applying it with an atomizer. This can be repeated until effervescence ceases, when the membrane will be found to have practically disappeared, leaving a whitish surface. When the membrane reappears it is again made use of. If the nose is invaded, it can be ap-

plied there with equal satisfaction. I am in the habit of having all the watery secretions from the nostrils absorbed with blotting paper rolled into conical shape and gently inserted into the nose, or by absorbent cotton wrapped on the end of a small stick, either of which is burned as soon as used. The peroxide is then applied. The keeping of the nostrils as free from secretions and membranes as possible is a matter of the utmost importance, and one too frequently overlooked. The poison is more rapidly absorbed from here than from any portion of the mucous tract, being very liberally supplied with lymphatics. In children old enough to use a gargle, I have them use chloral hydrate in glycerine and water soon after using the hydrogen peroxide. This serves a threefold purpose; it is an antiseptic, a local sedative and an antispasmodic. In children not old enough to use a gargle it may be applied with the DeVilbiss atomizer. At the same time bichloride of mercury, tincture of the chloride of iron, with or without chlorate of potassium, or such other remedies as may suit the judgment of the individual prescriber, or be applicable to the case in hand, may be used. For my own part, I prefer the bichloride. Coupled with this should be given good, digestible food at regular intervals, of which milk should form the basis, and such stimulants, from time to time, as the individual case may demand. The constitutional treatment is not less important than the local, for such a virulent poison as we have to deal with in this disease saps the vital forces with wonderful rapidity. Consequently this must be attended to from the outset. When the temperature exceeds $103\frac{1}{2}^{\circ}$ F., I have the entire body sponged with tepid water as often as may be necessary to bring it below this point. Pellets of ice internally will allay thirst and relieve very materially the turgid condition of the blood-vessels, and should not be omitted. Ice may also be applied to the throat in a rubber bag or a bladder, relieving greatly the inflamed glands. This, briefly outlined, is the treatment in the more malignant forms of diphtheria which has given me the best results, and I attribute them to the use of the peroxide of hydrogen.—Dickey, *Annals of Gyn. and Pæd.*

ON THE TREATMENT OF CHRONIC ENDOMETRITIS BY THE INTRA-UTERINE APPLICATION OF BORIC ACID.—Having obtained the most decided benefit in the treatment of cases of vaginal leucorrhœa and erosion of the os and cervix uteri, both acute and chronic, by vaginal application of boric acid, and having also observed the rapidity with which the healing process is effected by the same treatment in cases of division of the cervix for stenosis, I not long since designed a convenient form of insufflator for the purpose. Thinking I could go a step farther and apply the acid to the endometrium itself, I found that by means of a slightly curved vulcanite tube, something larger than a No. 12 catheter with tightly fitting rod or piston of the same material, I could safely do so.

The tube spoken of is charged for about two inches from its point by drawing back the piston and plunging the tube downward into powdered boric acid contained in some deep receptacle, such as a wide-mouthed bottle. The point of tube being then inserted into the uterus, having been previously cleansed with my wire curette which holds the secretion during removal, the piston is pushed home, and a stick of compressed boric acid is deposited in the uterus, the patulous condition of the os and cervix existing in these cases facilitating the introduction of the tube.

By this simple means I have succeeded in curing quite a number of cases of this troublesome and intractable complaint, some of which had previously, both in my own practice and that of others, resisted the usual routine—caustic treatment. I also thoroughly dust over the vaginal walls with the powder at the same time.

Judging by my own experience, I should say that if this treatment be adopted (as described), the most chronic cases of endometritis should yield to a dozen such applications at most, at intervals of three or four days. It is now some years since Dr. Redmond, surgeon of the eye and ear cases in St. Vincent's Hospital, Dublin, having found the value of boric acid in cases of suppuration from the ear, was kind enough to suggest to me its suitability as a treatment in these cases. And it was while making trial of his valuable suggestion that I read a paper by Dr. Schwartz, of Halle, on the value of boric acid as a vaginal application in cases of leucorrhœa, which considerably strengthened the idea I had then formed as to its use.

The facility with which the powder can be deposited on the cervix, os, and vaginal walls by my insufflator, either with or without the speculum, save a good deal of time and trouble. And this plan of treatment will be found on trial much more popular with both patient and doctor than glycerine tampons or other moist or greasy applications.

The boric acid, beside acting as an antiseptic astringent and deodorizer, has also evidently some affinity for water, though not to so marked a degree as glycerine, so that it will also act as a depletant. And it will be only fair, when it has been freely applied, to notify this peculiarity of the powder to the patient.

I have now given the treatment described a fair trial, and have found it most effective, even in more than three inveterate cases, where the discharge had lasted for years, and where the patient had found it necessary to constantly wear a diaper or sanitary towel.—A. Duke, *Brit. Med. Jour.*

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—At the last meeting of the Royal Medical and Chirurgical Society, Dr. F. Hewitt discussed the circumstances leading to embarrassed and obstructed breathing during anæsthesia, the communication being based on clinical observations. His conclusions pointed to the necessity for avoiding the deprivation of oxygen during anæsthesia in the subjects of feeble circulation, in obese persons, and in those whose respiratory apparatus was much diseased. It was also shown that ether is far less likely than chloroform to be followed by cardiac depression in cases of temporarily suspended respiration, but chloroform should be avoided for those requiring considerable quantities of the anæsthetic. It was recommended that the difficulties attending the use of ether at first in plethoric subjects should be overcome by slowly administering a small amount of the A.C.E. mixture, and subsequently giving the ether from an Ormsby's inhaler. Immediate relief of any embarrassment of respiration was enjoined as an invariable rule to follow.

Mr. Haward urged the need of caution in accepting results of experiments on the lower animals as bearing on human beings, and insisted on the value of clinical observations in this connection. He advised turning the head of the patient on one side to promote removal of the profuse secretion of mucus sometimes occasioned during anæsthesia. Believing that even profound anæsthesia had no power to abolish

shock, he thought that a stimulating anæsthetic, such as ether, was preferable for employment.

Dr. Lauder Brunton dissented from the view that the effects of experiments on animals were very materially different from those produced on human beings, but there was danger in drawing hasty conclusions from such experiments. He pointed to the results of the Hyderabad Commission as showing the failure to directly influence the heart's action by chloroform while the lungs were freely supplied with air. He approved Dr. Hewitt's explanation of the cause of death following the operation for piles, viz., that it was due to a reflex action affecting the heart. Chloroform being the only anæsthetic practically available in the tropics, it became highly important to determine how it could be safely administered.

Dr. Silk agreed that the most perfect anæsthetic was that which enabled insensibility to be brought about with the least possible deprivation of oxygen, and approved the prior injection of morphine, especially in cerebral surgery. He disliked anæsthetic mixtures.

Sir Joseph Fayrer said he had seen only two cases of death under chloroform in an experience of many thousand administrations. Ether was unpleasant to take, and could be used in India only during the winter season.

Dr. Sheppard objected to the use of the A.C.E. mixture as causing a profuse secretion of mucus, and considered the lateral position of the patient a dangerous one.

Dr. Hewitt, in reply, advocated resort to tracheotomy in cases of embarrassed breathing during anæsthesia. He preferred the administration of morphine after the patient had recovered from the anæsthetic rather than before its employment.

—*Medical Press and Circular.*

THE COLLODION DRESSING IN MINOR SURGERY.—If simplicity, ease of application, and convenience in use are true measures of the value of a surgical dressing, the one described here should find favor. My own regard for it increases with each year that I use it.

It is applicable to all ordinary *clean* wounds—to all wounds where no pus-forming elements have been introduced by accident, or by the surgeon. This includes incisions for the enucleation of small tumors, caseous glands, etc.; incised wounds of all kinds; contused wounds that have been thoroughly cleansed; the punctured wound of a compound fracture, and many others that will readily suggest themselves. Sutures destined to be absorbed do not interfere with it, nor do silken ones when properly sterilized. It is of especial advantage for the application of small dressings to the head and face.

The materials required are absorbent cotton and flexible collodion; and the method of use is as follows:

The wound having been thoroughly cleaned and asepticized, the surrounding skin for a space of from one to two inches is treated in the same manner. If the part is a hairy one, the same area must be closely cropped, or better shaved. Whatever in the way of sutures may be necessary, is now applied; and, after another cleansing, iodoform or iodol is dredged fairly thickly over the wound.

A very thin layer or "fluff" of absorbent cotton, simple or borated or iodoformed—as you choose, is now applied. It should stretch about half-way from the wound to the border of the surface which has been prepared for the dressing. With a camel's-hair brush the flexible collodion is put on the cotton,

which is brushed down, as it were, upon the wound. The thin cotton layer melts down; in a moment the collodion has set; it adheres firmly to the surface of the wound and to the skin; and your wound is covered.

Layer after layer of thinly spread absorbent cotton is now added—each one overlapping its predecessor slightly, and taking firm hold of the skin. Two to six or more layers, as may be deemed necessary to protect the wound, may be employed.

The ether in the collodion causes some smarting; but otherwise the dressing is painless.

When the last layer is applied, you have an absolutely perfect dressing. Your wound is hermetically sealed. The dressing is permanent and may be left for a week. But two other and greater advantages remain:

Firstly, your dressing is self-retaining. This is a small thing surgically—but an important one from the patient's point of view. Ask him to weigh the comparative merits of a week or two with a bandaged and plastered cephalic extremity, perhaps with confinement to the house added thereto by the inability either to wear his hat with decorum or meet the inquiring gaze of his fellows; ask him to compare that with a light dressing confined to the wound, which will permit him to pursue his usual course in life without molestation. There will be no hesitation about his answer. And its value will be more apparent still when the dressing is used on the ears, chin, or parts difficult to bandage to the patient's contentment. Nor are we liable to be annoyed by the slipping or loosening or dirtying of bandages.

Finally, the dressing is æsthetic. The collodionized cotton is semi-transparent, and is invisible at a short distance if only a few layers are used; if more are applied it forms a grayish-white coating which is not conspicuous. The small uniform protuberance of almost skin color will often pass unnoticed.

A further improvement, which would render the dressing almost invisible would be to use light pink cotton, if such is procurable—or to incorporate a small quantity of some red dye like cochineal with the collodion.

If it is desirable at any time to remove the dressing, or to take out sutures, the edge of the collodion-cotton film is lifted all around with the dressing forceps, and perhaps with the aid of a little hot water, the entire mass comes off in one piece. As the wound heals fewer layers of cotton are required.

I really believe that I have often received more appreciation from patients for this procedure than for anything else that I have done for them.

—*Gottheil, Int. Jour. Surgery.*

THE BACILLUS COLI AS A CAUSE OF ENTERIC FEVER (RODET).—It may be assumed that Rodet's statement of the relationship which he believes to exist between the bacillus coli communis and the bacillus of Eberth will not meet with ready acceptance. It reopens in a startling manner the whole question whether septic bacteria may, under certain conditions, acquire pathogenic properties, and revives Murchison's contention that enteric fever may arise spontaneously from decomposing sewage. While the larger question awaits answer, isolated and fragmentary outbreaks of enteric fever now and again occur which resist every effort to fix their origin in some previous case. Here it is that, in certain cases, Rodet's views lend themselves towards an explanation with a facility which brings them at once into prominence

as a possible factor in etiology, and bespeaks for them more than a passing consideration.

In the outbreak at present under consideration it was possible at once to exclude every other method of communication, and to attach suspicion entirely to the water-supply, which for the time being was foully polluted. Further, the source of the pollution was so manifestly local that the only other question requiring answer had reference to the special element in the pollution which could be regarded as causing the outbreak. This outbreak was limited to three cases, each of them presenting well-marked and unmistakable symptoms of enteric fever. Two of the patients were brothers; the third belonged to a neighboring family. This last, with the elder of the brothers, were miners; the younger of the brothers was at school. The elder brother, aged sixteen, sickened on June 29; the younger, aged nine, sickened on July 5; while the third lad, aged twenty, sickened on the 3d of that month. These lads were members of a detached population of miners, consisting of between thirty and forty families, and with a knowledge of their surroundings, it was possible rapidly to conclude that the more usual method of transmitting the disease were not in operation as a cause of the outbreak. To this general statement there is, however, one exception, which I shall afterwards refer to. But the milk-supply of the infected families was from separate sources, both good. There was no system of sewers, provision for the disposal of refuse water being supplied by open channels. Further, the water-supply was, as has been said, impure, and the circumstances from which this arose were at once simple and unusual. Until just prior to the time of the outbreak the water-supply of this population was brought by hand-carriage from some little distance; but early in June this was superseded by a gravitation supply obtained through connection with a system which in other directions supplied over 20,000 of a population. This particular branch of the supply was an end pipe in that direction of the distribution, and the outbreak of fever brought to light the fact that the water-supply by it was foul. No analysis was made, but the smell of the water newly drawn from the tap revealed the existence of sewage impregnation. The water supplied to other districts by the same system was unaffected, and a simple explanation made clear the cause of the local impurity. As in all similar patches of population, surface pollution of the soil was the rule, and it was consequently assumed that when the water-pipes were being laid this got access to them. The water first sent through them carried this impurity along with it, and on this being discovered, the simple expedient was adopted of allowing the water to run off till it had lost its smell. So far the connection between the impure water and the cases of enteric fever is clear. There remains to be considered the question as to the active element in the impurity; and by way of exclusion it may be stated that for at least five years and a half before the cases in question, no other illness occurred in that particular section of the community presenting symptoms which supported for any time a suspicion of enteric fever.

In previously stating that the more usual methods of transmitting the disease could here be excluded, I purposely made one exception. In every similar inquiry there always fails to be reckoned with that ubiquitous example of his class, the ambulant enteric patient; and here it may be that he awaited his opportunity, and supplied the factor in the impurity,

which a free adoption of Rodet's views would render unnecessary.—Chalmers, *Brit. Med. Jour.*

THE ANTI-FERMENTATIVE TREATMENT OF INFANTILE DIARRHŒA.—The treatment that I have lately employed in these cases consists of (1) drug treatment and (2) diet treatment.

1. If the view that I entertain be the correct one—viz., that the milk ptomaine tyrotoxinon is one of the main factors in the causation of the diarrhœa—then the rational treatment will be to destroy or to render insoluble, and therefore inert, this substance, and at the same time to stop the abnormal fermentative changes occurring in the stomach and intestines, and so arrest further production of this and any other irritating chemical bodies. Now, can any one drug combine these two functions? Yes, in the soluble biniodide of mercury we have a drug which renders the milk ptomaine insoluble and inert, and which, at the same time, is one of the most powerful, if not the most powerful, of antiseptics. But, it may be asked, what advantages in the treatment of acute infantile diarrhœa has the biniodide of mercury over the bichloride of mercury, as recommended by Ringer? It has the following decided advantages: (a) The soluble biniodide of mercury precipitates the milk ptomaine tyrotoxinon by forming an insoluble double iodide with it; bichloride of mercury is powerless to precipitate the milk ptomaine. (b) The soluble biniodide of mercury is a much more powerful antiseptic than the bichloride of mercury. (c) The soluble biniodide of mercury is a safer drug than the bichloride of mercury, in that it is more rapidly eliminated from the system than the latter preparation. This is explained by the facts that the bichloride of mercury, after it has passed into the circulation, becomes converted into insoluble, or partially insoluble, compounds, both by the albumen and by the carbonate of soda of the blood (an albuminate of mercury and a carbonate of mercury being respectively formed), and that in consequence the mercury becomes deposited in the various tissues, and so, by not being speedily eliminated from the system, may produce toxic effects. This disadvantage is not possessed by the soluble biniodide of mercury, which is not precipitated either by the albumen or by the carbonate of soda of the blood, so that there is consequently no danger of its being deposited in any of the tissues; and, as a matter of fact, after absorption into the circulation, it is rapidly eliminated by the kidneys. This rapid diffusibility through the system, and elimination of the soluble biniodide of mercury in the urine, I have been able to prove in the following manner: A male adult, who had not previously taken mercury, came under my friend, Mr. Hastings Stewart, to be treated for secondary syphilis. A subcutaneous injection of three-quarters of a grain of the soluble double iodide of mercury and potassium was administered, and within two hours of the injection I was able, after careful analytical search, to find a small quantity of mercury in the urine. It was on account of its property of precipitating the milk ptomaine tyrotoxinon, and so rendering it insoluble and inert, and on account also of its powerful germicidal action, that I was first led to employ the soluble biniodide of mercury in the treatment of infantile diarrhœa. I have always prescribed it together with chloral hydrate, the latter being employed as a sedative to the irritated and possibly inflamed mucous membrane of the stomach and intestines, and also on account of its action on the

muscular walls of the intestine in diminishing exaggerated peristaltic action. The form in which I prescribe it is as follows:

R.—Liq. hydrarg. perchlor.....	m. xij.
Potass. iodid.....	gr. ʒ.
Chloral hydrat.....	gr. j.
Aquam ad.....	ʒj.

This forms the teaspoonful dose, which, in the case of infants up to six months of age, may be given every four hours; and for infants from six to twelve months of age, every three hours; children more than one year old may take two teaspoonful doses. This mixture contains the biniodide of mercury dissolved in the excess of iodide of potassium as a soluble double iodide of mercury and potassium; every teaspoonful of the mixture contains one-fiftieth of a grain of biniodide of mercury. Taking into account the irritant action of most of the persalts of mercury, it might be imagined that the biniodide of mercury itself would possibly act as an intestinal irritant. I have, however, never found this to occur in any one of the cases in which I have employed it, and this I attribute to its extreme solubility and diffusibility, and to its rapid elimination by the kidneys. I have by me the records of eighty cases of acute infantile diarrhoea that I have treated by the biniodide of mercury method. In all the cases the diarrhoea was severe, and in many of them was accompanied by vomiting, with signs of abdominal pain, and in a few of the cases by marked nervous prostration; the ages of the infants varied from three weeks to eighteen months. The results, briefly stated, are as follows: In seventy-two of the eighty cases the diarrhoea ceased within two or three days; in five of the remaining eight cases it ceased within four days, and in no case did it last over seven days.

2. As regards the diet treatment, if milk is to be given, I always direct that it should be previously boiled (and here let me remark that boiling the milk not only destroys germs, but also rapidly decomposes any of the milk ptomaine tyrotoxin that may have been formed, the tyrotoxin splitting up, on boiling, into carbolic acid and nitrogen. In the majority of cases, during the continuance of the diarrhoea, I order one part of the boiled cow's milk to be mixed with three parts of barley water, and a few teaspoonfuls of this diluted milk to be given to the infant every hour. In certain cases it may be necessary to withhold milk altogether for a time, allowing the infant only barley water sweetened either with milk, sugar or with saccharine. I advise the mothers that the various parts of the feeding bottle, when not in use, should be kept in a weak solution of permanganate of potash, which is not only a powerful germicide, but, since all ptomaines are rapid reducing agents, they become speedily destroyed by the oxidizing powers of the permanganate. I also endeavor to get the mothers to use the old-fashioned, torpedo-shaped, feeding bottle, in which no India rubber tubing, the favorite lurking place of germs and other abominations, is employed.—Luff, *Lancet*.

A good antiseptic for operations in diphtheria is a 10 per cent. solution of resorcin in glycerine. Several severe cases have been treated in this way in Germany. The solution should be applied by means of a brush every hour during the day and every two hours during the night; and the air of the room should be kept saturated by means of a spray apparatus containing a 5 per cent. solution of resorcin.

Medical News and Miscellany.

DIPHTHERIA prevails in Buchanan county, Iowa.

PROF. LAPLACE has returned from his visit to Berlin.

A GENERAL epidemic of measles prevails in Reading.

VISITING the hospitals is recommended as a cure for *ennui*.

SMALL-POX prevails extensively in Mexico, along the Texan border.

STALE, flat, and unprofitable—the trip to Berlin for lymph or for information.

DR. CYRUS EDSON blames the salt on the car-tracks for the prevalence of pneumonia.

TRENTON buried 28,530 of her citizens in 1890, and replaced them by 30,103 babies born.

RECENT investigations show a likelihood of the adulteration of phenacetin with antifebrin.

DR. H. C. ERNST has given nearly all the inoculations in the Massachusetts General Hospital.

DR. SIMON BARUCH takes charge of the *Dietetic Gazette*, beginning with the January number.

DR. OBALENSKI, of Russia, thinks that balsam of copaiba is less used as a diuretic than it ought to be.

DR. JULIUS WEISS says that not over half of one per cent. of the doctors applying for lymph in Berlin can be supplied.

DR. L. WEBSTER FOX has just been appointed ophthalmic expert to the Board of Pension Examiners of the Philadelphia district.

KOCH's lymph is prepared under the supervision of his son-in-law, Dr. Pfuhl, who, however, has not proved himself Pfuhl enough to disclose the secret of its composition.

DOCTOR GIBIER says that many persons have been deceived by the contractions of a dog's throat muscles in hydrophobia, and thinking to extract a bone caught in the throat have been bitten.

LEPERS in Madras are being treated by Koch's lymph. The reaction is said to be marked. Neumann, of Vienna, and Cheyne, of London, report good results from its use in leprosy.

NOTE.—Dr. Waugh has secured some of Koch's lymph, and would be greatly obliged to any physician who may send him a case of lupus, or of external tuberculosis in its early stages.

AN interesting case is reported in England of lead-poisoning resulting from the use of ginger beer which had been supplied on tap at a public house. The analyst who presented the report attributes the presence of lead to the action of citric acid in the ginger beer upon the pipes of the beer engine.

CORNELIUS VANDERBILT and his mother are about to build a "People's Palace" in New York. It will be modelled upon the institution bearing that name in London, and will cost \$250,000. It will contain departments for technical and industrial education, mission schools, food and shelter, gymnastics, libraries, etc.

THE world do move! England is beginning to ask why she cannot have lavatories on her railway carriages.

DURING the illness of the late Emperor Frederick, it became so much the fashion to consult Dr. Morell Mackenzie that his professional income rose to an average of \$1,200 a day.

A JAPANESE medical journal contains an interesting report of a case of Asiatic cholera in a dog. The dog was killed and dissected, and showed evident signs of being attacked by this disease.

THE Madras government is making further efforts to market its quinine. The drug is now put up in five-grain lots and offered for sale by numerous officials, at the uniform price of three pies.

DR. POTTER, of the *Indiana Medical Journal*, is on a visit to the Eastern cities; being delegated by the Indiana Medical Society to investigate the merits of Koch's lymph, as employed in the city hospitals.

THE Indian government is taking steps to have cocaine manufactured at the cinchona factories. Coca leaves grown in India are said to be so superior that they command double the ordinary price in England.

DR. PURVIS, of Edinburgh, suggests that as the immunity enjoyed by persons who have gone through attacks of contagious disease, resides in some peculiar alteration in the blood, this immunity may be transmitted to others by transfusion of the blood.

THE cholera epidemic at Mecca is over. Almost all the pilgrims have left. It is probable that cholera has added about 15 per cent. to the death rate. Usually as many as 20 per cent. of the pilgrims die, and this year it is estimated at about 35 per cent.

NOT long since, an English medical student was charged with committing rape upon a patient who had come to his hospital for treatment. Now another student is charged with having killed his step-brother. A little missionary work is needed in the London schools.

DR. ROWLAND, the well-known physician of Media, Pa., met with a painful accident last week. His horse fell, threw the doctor, and dragged him some distance. He was fortunate in escaping with a broken rib and an injured shoulder. Dr. Rowland is seventy-seven years of age.

RECENT experiments in the use of hydrate of amyl in seven cases of epilepsy show that this drug produced a great desire for sleep. Three out of the seven were improved; on the remaining four no appreciable effect was noticeable. The dose varied from five to eight grammes per day.

THERE is room for reform in the way of medical supplies for sea-going vessels. The medical chests still contain salts and senna, opodeldoc and laudanum, and not much else. A good chest, stocked with drugs and appliances in modern form, with a suitable book of instructions, should find a ready sale.

A TERRIBLE accident is reported in the *Indian Medical Gazette*. A tame monkey got hold of the family medicine case and swallowed 750 of Count Mattei's cancer specific pills; one of which is intended to be dissolved in a quart of water, and a teaspoonful of this is the dose. The monkey is as lively as ever.

THE American Association for the Study and Cure of Inebriety will hold a meeting in the hall of the New York Academy of Medicine, for the study of The Relation of Life Insurance to Alcohol and Opium Inebriety. Alcohol: its Physiological and Pathological Action, and its Use and Abuse in Medicine, on January 17.

THE *Brooklyn Medical Journal*, as it comes to our hands this month, is of such excellence that we feel compelled to say a word of special commendation. We advise our readers to send to the publishers, at 333 Hancock street, Brooklyn, for copies of this January number, and see for themselves what has pleased us so highly.

It is said of Horace Greely, that upon one occasion a note of his, in which he refused an invitation to dinner, was submitted to a chemist to be dispensed. The chemist looked and was puzzled, but was not to be done. Making up an innocuous mixture, he handed it to the customer. "For cough?" was the laconic question. "Yes; and a very good cough mixture, too!"—*Pacific Rec.*

KATE FIELD has been examining some statistics, and finds, to her horror, that American women spend about \$62,000,000 a year for cosmetics, most of which are made of zinc oxide, of corrosive sublimate and other poisons. This leads her to ask this pertinent question: How can women, vain enough to paint and dye their hair, bring forth children stalwart enough to resist temptations that lead to all manner of vice, including drunkenness?

THE *American Doctor*, of Richmond, Virginia, in an account of Dr. Joseph M. Mathews, President of the Mississippi Valley Medical Association, says: Dr. Mathews was a very close second in the race for the presidency of the American Medical Association this year. He was selected to deliver the address on surgery at the meeting in Washington in 1891. Dr. Mathews was born 1847 and graduated in medicine 1867, and is a specialist on rectal diseases.

LAMENT OF THE BACILLI.

For ages we lived, and on mankind we preyed,
With none to molest us or make us afraid;
In decillions we throve and quintillions were born
To render our enemy, man, more forlorn;
Though Lilliputs we, yet our forces united
At last have our Brobdingnag foemen affrighted,
And with lymph they assail us, till now, like poor Lo,
Or Chinese cheap labor, we're fated to "go."
So, trim little headstones we last week bespoke,
And we yield up our spirits to Pasteur and Koch!

—*Life*.

TONSILLITIS.—A robust colored man, a porter on the Pullman cars, was seized with a sore throat. I saw him on the morning of the third day. He had fever, a flushed face, with tonsils swollen and painful as usual.

He was put upon the following prescription, the directions being fully carried out:

R.—Tinct. veratrum vir. 30 drops.
Sulphate morphine. 1½ grains.
Distilled water. 6 drachms.

Of this, one teaspoonful was to be taken every two or three hours, as needed.

This is five drops of veratrum and a quarter-grain of morphine in a teaspoonful of water as one dose. The next morning the patient was found to be up and dressed; he had had his breakfast and was smoking a cigar, his throat being entirely well.

—Hudson, *K. C. Med. Index*.

AMONG the latest attempted solutions of the cheap-fuel problem is the method of a German inventor, who proposes to manufacture gas by dropping a stream of crude petroleum through a blast of cold air from a force pump. The gas thus obtained will be confined in a regular cylinder open at one end, where it will be lighted. This produces an intensely hot flame of several feet in length. By means of this flame the inventor proposes to heat boilers, and he maintains that the heating of large blocks can thus be reduced very considerably.

IN the general attention now being given to the qualifications of councilmen, it is to be hoped that physicians will not neglect the interests of Mr. R. C. Horr, of the Thirty-third Ward. To his energy and persistency we owe the passage of the pure milk bill, the first step in the way of securing a proper supply of this indispensable food for infants. That the measure was not all that could be desired was no fault of Mr. Horr's; and one of the very best things the voters could do, would be to send him back to councils, backed by an increased majority, to complete this good work.

SOME of the possibilities for crime offered by the practice of mesmerism—or hypnotism, as it is now the fashion to call it—were shown recently in Paris, when a hypnotist secured a check for 10,000 francs from the victim. The existence of such possibilities has been recognized in a practical manner by the Russian medical department. Their medical council has resolved that henceforward the application of hypnotism for medical purposes can be permitted solely to medical practitioners under the condition that the operation is to be practiced invariably in the presence of other medical men.

THE lion and the lamb have found a *modus vivendi* in California, without the absorption of the latter into the tissues of the former. *The Southern California Practitioner* proposes that the five medical colleges of the State, three regular, one homœopathic, and one eclectic, shall unite in an onslaught upon the State treasury. Very modestly, however, as the proposition calls for State aid to one-half the amount contributed by the members of the Faculties.

California is a great and wealthy Commonwealth, and she can richly afford to set the older States a good example by endowing her medical colleges.

PROF. DIXON met the faculty of Jefferson Medical College last Saturday evening at the residence of Prof. Chapman. Dr. Dixon looks well, and reports a very pleasant visit to Berlin; though at first there was some unpleasantness, owing to garbled newspaper reports concerning his claims having preceded him. Dr. Dixon promptly settled the difficulty, not by withdrawing his claims, as has been reported, but by stating that he had made no claims of priority in the use of a remedy whose nature was still unknown. When Koch has divulged his secret it will be time enough to make such claims. What Dixon has done has been long since placed before the medical public.

THERE are two opinions to be held upon the quarrel in the Keystone Veterinary Association. The University men propose to continue their free clinic, claiming that it is necessary, to secure enough material for the proper education of the students. On the other hand, the members not directly interested in the veterinary school have a natural objection to seeing their means of livelihood destroyed by the introduction of free clinics. The experience of the

medical profession makes them anxious to nip the free clinic abuse in the bud. But it cannot be done; and the only resource is for the Association to form a new school, with free clinics, of their own, or move out to some locality where colleges are not, and doctors are paid.

THE Yankee medical student has not very much to be thankful for. First of all, the medical "diploma mills" turn out their thousands of ill-trained and indifferently educated youths to take part in the professional struggle for existence, and then no kind legislature has interfered for the purposes of restricting the practice of medicine to native graduates. His woes, therefore, are tangible, but now Mr. McKinley has got passed a tariff, in virtue of which the tax on microscopes has been raised to 60 per cent., so that an instrument which costs ninety dollars in Germany will, wholesale, cost one hundred and fifty dollars in the States. This will hardly have for effect to stimulate microscopical work, and the cost will, of course, increase *pari passu* with the minuteness of the object to be magnified, seeing that the higher the power the greater the initial cost, and, therefore, the more crushing the protective duty.—*Hosp. Gaz.*

AT a recent meeting of the Executive Committee of the Alumni Association of the Medico-Chirurgical College, the following resolution was unanimously adopted, and the undersigned appointed a committee for the carrying out of the same:

Resolved, That, in order to extend the educational work and influence of the college, and at the same time to further the interests of the Alumni Association and its individual members, semi-monthly evening meetings, to be held in the arena of the college, to which every member shall be invited by card; that an address shall be given, or a paper read, at each meeting, by one of the members, preferably a graduate of the school; that the name of the speaker and the subject of his address, or paper, be forwarded to each member, with notice of the meeting; also, that said meeting shall be open for remarks or discussion of paper by any member after the speaker for the evening has finished.

The committee has taken the matter in hand, and asks each member of the Alumni Association to give his support, that the undertaking may be a success.

The first meeting will be held some time in January, and it is earnestly requested that members desiring to read papers at any of these meetings will communicate with the chairman of the undersigned committee. John S. Stewart, M.D., 1716 Chestnut street; Morton P. Dickeson, M.D., David W. Levy, M.D., Committee.

DIFFERENT people will read with very different emotions of a plan of living by which the capacity for work may be rendered "almost unlimited." In the first place, a cynic philosopher has said that "leisure is the end of existence;" and in the second place, the means by which this illimitable power of work is to be attained involve the use of a drug belonging to the class which used to be called stimulants, but which it is now the fashion to call narcotics. Dr. J. N. Lane has published the result of his own experience: he recommends a cup of strong, black coffee, without sugar or cream, preceded and followed by a glass of hot water, every morning before rising, or at least one hour before breakfast. The various secretions are thus stimulated, the nerve force aroused, and the day's labor rendered easier, no matter how the duties of the preceding day and night may have drawn upon the system. Another cup at four in the afternoon is, he says, sufficient to sustain the energies for many hours. Only recently Dr. Mendel, of England, has written a paper describing the very injuri-

ous effects which an over-indulgence in coffee produced—general weakness, depression of spirits, aversion for labor, headache, and insomnia. Upon Dr. Lane's plan, somewhere about 50 grains of caffeine would be taken in each week, and the largest quantity noted by Dr. Mendel was 64 grains, so that it would seem that the power of doing an illimitable amount of work is obtained only at the cost of going dangerously near the poisoning point.

LAST week, 2,240 births and 1,733 deaths were registered in London. Allowing for increase of population, the births were 431, and the deaths 2, below the average number in the corresponding weeks of the last ten years. The annual death-rate per 1,000 from all causes, which had been 20.2 and 18.0 in the preceding two weeks, rose last week to 20.4. During the past ten weeks of the current quarter the death rate averaged 19.5 per 1,000, exceeding by 0.1 per 1,000 the mean rate of the corresponding periods of the ten years 1880 '89. No death from small-pox was registered, the corrected average being 9; no case of this disease was under treatment on Saturday last in the Metropolitan Asylums Hospitals or in the Highgate Small-pox Hospital. The death from measles, which had been 76 in each of the preceding two weeks, increased last week to 91, and exceeded the corrected average by 26. The fatal cases of scarlet fever, which had been 26 and 27 in the preceding two weeks, declined last week to 23, and were 16 below the corrected average. The Metropolitan Asylums and London fever hospitals, contained 1,913 scarlet-fever patients at the end of last week, the numbers on the preceding four Saturdays having decreased from 2,122 to 2,000; 151 cases were admitted during the week, against 205 and 139 in the preceding two weeks. The 41 deaths from diphtheria, though fewer than the number in the previous week, were 14 in excess of the corrected average. The deaths from whooping cough, which had been 33 and 15 in the preceding two weeks, increased again last week to 28, but were 16 below the corrected average.

"HOW THE PROFESSIONAL SITUATION STRIKES ONE LONG ABSENT."—Your correspondent is only partly right in the conclusion he has arrived at concerning the financial straits of the profession, as there are many good practices to be obtained; but the point is, money must be found to purchase them. There are no doubt numbers of men entering the profession without the means to introduce them into a practice; consequently they resort to setting up cheap dispensaries and other undignified means of advertising themselves at the expense of their brother professionals. With reference to another point in your correspondent's letter, he would be more correct in saying that only a small section in each class of the public have a low estimate of the profession. However, should this opinion increase, the public must eventually suffer by the introduction of an inferior class of men, lacking in university education and that refinement which is so essential in a medical man. In England the profession does not enjoy that position which it is justly entitled to. The leaders in medicine and surgery, fashionable country doctors, asylum superintendents, Government inspectors, and those with exceptional address and manners, are in the very best society. Not so a large portion of the rank and file, who have to struggle against long odds in upholding the honor and dignity of a noble and highly philanthropic calling. Why is this, when the class of men that enter the profession can compare favorably with those of the army and the church?

For instance, in my small district I find thirteen have joined in so many years. Two were sons of county magistrates, five sons of clergymen, two of solicitors, and four of medical men. In Ireland there is a fair proportion of medical magistrates in each county; the leaders of the profession, socially speaking, rank with members of the bar, and the rank and file above that of the solicitor branch of the legal profession. Taking it all round, the position is a good one. In conclusion, I consider the mischief is partly due to dispensing, cheap dispensaries, and such like, but in a great measure to medical men themselves, who are only too ready to underrate each other, both socially and professionally, to their patients and friends.

—County Magistrate, in *The Lancet*.

PATENTS, ETC., on medical subjects, issued December 16, 1890:

Making alum cake.....H. W. Shepard.....Camden, N. J.
Dental grindstone wetter and wiper.....E. C. Goeldner.....Watertown, Wis.
Dental mouth-speculum.....E. Cash.....Macomb, Ill.
Dental plugger.....L. West.....Marionville, Mo.
Dental tool.....G. H. Peirce.....Wakefield, Mass.
Dental vulcanizer.....F. W. Seabury.....Providence, R. I.
Device for injecting medical powders.....W. H. Rowland.....Albany, Ore.
Pessary.....C. P. Tatrow.....Spokane Falls, Wash.
Adhesive plaster.....R. K. Gregory.....Greensborough, N. C.
Spinal curvature corrector.....J. B. Hilliard.....Glasgow, Scotland.
Flower of sulphur making.....E. F. White.....Bergen Point, N. J.
Surgical ligature receptacle.....O. P. Barber.....Saginaw, Mich.

TRADE-MARKS.

Dentifrice. (The words "Dental Cream" printed in red, in a horizontal line, within a red border).....J. M. Colcord & Co. Saratoga Sp'gs, N. Y.
Food Seasoning. (The words "In the Soup").....A. J. Favier.....Boston, Mass.
Remedies for nervous and sexual diseases. (The word "Vigoritine").....W. L. Helke.....Sacramento, Cal.
Remedy for croup. (The words "Grandma's Favorite").....H. Kephart.....Berrien Sp'gs, Mich.
Liniment. (The word "Duncan's").....Webb Manufacturing Co.....Nashville, Tenn.
Wafers for bronchial troubles. (The words "Stop Cough").....H. A. Whitney.....Woonsocket, R. I.
Prepared soda beverage. (The words "Magic Iron-Tone").....Iron-Malt Chemical Co.....New York, N. Y.
Headache cure. (The word "Algosine").....Algosine Manufacturing Co.....Reading, Pa.
Cure for liver and kidney diseases. (The words Dr. Wortzell's Remedies").....Livermore Falls Medicine Co.....Livermore Falls, Me.
Compound for throat and lung troubles (The four letters "K K K K").....Rockey & Baltzley..New York, N. Y.
Cosmetic and remedial cream. (The representation of a lemon, in connection with the words "Royal Lemon Cream").....J. A. Curran.....Denver, Colo.
Remedy for kidney, liver, and stomach diseases. (The word "Calmanua").....C. Kertell.....San Francisco, Cal.

CHARLES J. GOOCH, *Patent Attorney*.

LOCK BOX 76, WASHINGTON, D. C.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

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PAGE.		PAGE		PAGE	
ORIGINAL ARTICLES.			LETTERS TO THE EDITOR.		
KOCH'S TREATMENT OF TUBERCULOSIS. By Ernest Laplace, M.D.	43	Treatment of Pneumonia. Baskerville . . .	53	Cancer Mortality Amongst Jews. Blaney . .	57
RÉSUMÉ OF PROFESSOR DIXON'S ADDRESS OF JANUARY 16, 1891, ON THE KOCH REMEDY FOR TUBERCULOSIS	45	Dosimetry. D. J. T.	53	Chrysarobin in Hemorrhoids. College and	
DELAYED OPERATION IN PYOSALPINX—NOT AN UNUSUAL HISTORY. By A. B. Hirsh, M D, Philadelphia	46	Go West. Starkey	53	Clinical Record	57
CONSTIPATION FROM A SURGICAL POINT OF VIEW. By C. Ellsworth Hewitt, M.D. . .	47	Free Dispensary for Women. Bigelow . .	54	Glycozone. Waugh	57
FIFTY REMEMBERS FOR DRUGGISTS. By H. M. Whelpley, M.D., Ph.G.	49	BOOK NOTICES.			
THE PROSTATIC ELECTROLYZER. By John V. Shoemaker, A.M., M.D.	50	Sexual Impotence in the Male and Female. Hammond			55
SOCIETY NOTES.			PAMPHLETS		
PHILADELPHIA ELECTRO-THERAPEUTIC SOCIETY	51	THE MEDICAL DIGEST.			
EDITORIALS.			TRANSLATIONS. Hutchinson		
THE REPORTS OF DRs. LAPLACE AND DIXON	52	Decadence of the Practice of Medicine in China			55
HAVE WE THE GRIPE?	52	Chinese Medical Aphorisms			55
ANNOTATIONS.			Importance of Examination of the Teeth in Epilepsy. Bakowski		
On Organizing an Operation.—The Talk of an Experienced Operator	53	The Corpus Luteum. Robinson			56
		Diphtheria and Subsoil Water. Adams . .			56
		Chancere on Finger. Stevens			56
		Proposed Changes in the Missouri Pharmacy Law. Weekly Med. Review . . .			56
		Hoang-nan in Pruritus Ani. McMurray .			57
		Guaiacum. Murrell			57
		Formula for Styrene. Beach			57
		A Mouth-wash. Aulde			57
		For Whooping-cough. Talamon			57
		Proctitis, Piles, and Fissures of the Anus. Med. Compend			57
		Antagonism Between Bacilli of Anthrax and "Blue Pns." Blagovestchensky . .			59
		Koch's Lymph in Its Action on Bacilli. Gibbs			60
		On Continuous Headache. Browning . .			60
		Coxitis. Bauer			60
		Koch's Lymph and Jenner's. Woodbury .			61
		Good Points from "The Medical World" .			61
		Massage in Fractures. Crickx and Lebrun,			62
		Therapeutics of Acetanilid. Aulde . . .			62
		Albuminuria of Pregnancy. Tynan . . .			63
		MEDICAL NEWS AND MISCELLANY, 63			
		ARMY, NAVY, AND MARINE HOSPITAL SERVICE			64
		NOTES AND ITEMS			iv, xii

Original Articles.

KOCH'S TREATMENT OF TUBERCULOSIS.¹

By ERNEST LAPLACE, M.D.,

Professor of Pathology and Clinical Surgery in the Medico-Chirurgical College of Philadelphia.

IN compliance with the decision of the Faculty at a special meeting, held November 19, 1890, that I should visit Berlin to investigate Koch's treatment, I respectfully submit, that I left New York November 22. In Paris, December 2, I visited Pasteur, who expresses himself very favorably as to the possibilities of Koch's discovery, though guarded in his opinion of it as a curative agent.

Proceeding immediately to Berlin, I got an easy access to Prof. Koch, who in addition to the satisfaction of seeing an old pupil, gave special consideration to my credentials from the Faculty of the Medico-Chirurgical College, the Governor of Pennsylvania, and the Mayor of Philadelphia. Very reserved in the application of his discovery, but confident of its ultimate success, he immediately promised a supply of lymph, and offered all possible facilities for special observation of the cases treated in the hospitals of Berlin. Dr. George Cornet, who was among the first to apply Koch's lymph to the treatment of human tuberculosis, also placed his public and private clinics at my disposal.

Koch's discovery consists in a liquid styled the "Lymph," of a brown color. Its exact composition is known to the discoverer, Prof. Koch; his son-

in-law, Dr. Pfuhl; and an intimate friend, Dr. Libbertz. They are bound, by the German government, to keep the composition a secret, the State having relieved them of any possible blame for so doing. The State has entrusted to them alone the privilege of preparing the lymph.

To use the lymph for the treatment of tuberculosis it is dissolved in water, so that, as a rule, the first dose given a patient is one milligramme of the lymph. This is given in the form of hypodermic injections, by means of a sterilized hypodermic syringe, generally in the region of the spinal column.

The pure lymph keeps indefinitely, but once dissolved it soon becomes turbid from the development of micro-organisms, hence Koch advises that the water used be a two per cent. solution of carbolic acid, or, if pure water be used, the liquid to be injected should be sterilized by boiling previous to its being used.

The forms of tuberculosis to be treated must be divided into two great classes:

1. Tuberculosis of the skin, and surgical tuberculosis.
2. Pulmonary tuberculosis.

In all cases of tuberculosis the remedy acts by creating a violent inflammatory process around the tuberculous tissue. This inflammation or reaction takes place after each injection of lymph, and continues to take place until all the tuberculous tissue has been destroyed. The patient then reacts no longer, even under largely increased doses, that is five centigrammes, or even as much as five decigrammes of lymph. A patient who does not react is likewise said to have, through the constant reaction, become free from his tuberculous condition. With these

¹ Official report to the Faculty of the Med.-Chi. College.

general considerations the following is the result of the treatment in lupus and surgical tuberculosis.

From three to eight hours after receiving a sufficient dose, a lupus will redden, swell, and begin to secrete a thick serum. Fever rises to 39 C., or even as high as 41 C., in some cases, and will last from eight to twelve hours, when the temperature gradually sinks to below normal—sometimes as low as 36 C. When the reaction is very violent, after one day's interval the same dose is given again, and the dose is increased only when the reaction ceases to be as violent. Gradually, during the course of treatment, the lupus, after thus oozing continuously, begins to cicatrize, and by the time the patient ceases to react under increased doses of lymph, there exists a perfectly smooth surface, where formerly an indolent, tuberculous ulceration existed.

In tuberculous affections of joints, these show the reaction by swelling, and, as a result, pain. The tuberculous tissue, being deep, cannot eliminate itself as promptly as in the case of skin tuberculosis, hence the greater tediousness. Fistulæ and open tuberculous abscesses show increased secretion, and finally close, after the elimination of the tuberculous surface.

In tuberculosis of bone, nothing short of the surgical removal of the sequestra can eliminate the parts acted upon by the lymph.

In all cases, the reaction consists in an apparently chemical union of the lymph with the tuberculous cells, resulting in violent congestion, or even inflammation of the neighboring parts.

Tuberculosis cells seem to be the only ones thus acted upon. This fact must be borne in mind to thoroughly understand the conditions of treatment in the second great class of cases, that is, pulmonary tuberculosis. Only such cases as are in the incipient stage are selected for treatment. In these the initial dose is always one milligramme. The patient reacts exactly in the same way as in other forms of tuberculosis, except that owing to the inflammation, which must, of necessity, take place in the lungs, the respiration is much more labored. Inasmuch as it is now always possible to diagnose the presence of small tubercles, when they are disseminated, the danger of the treatment becomes apparent from the inflammation which will follow wherever tubercles exist, sometimes leaving not enough lung capacity to supply the needs of life, hence the fatal cases reported.

Furthermore, the lung, not being able to rid itself of the tuberculous material as easily as a superficial tuberculosis, it follows that even after the cessation of reaction, when the case ought to be considered as cured, the physical signs remain almost unchanged by auscultation and percussion, as it would require a very long time for such tissue to be resorbed. In a case of tuberculosis of the lungs, under the care of Dr. Cornet, the patient, aged twenty-seven, reacted at first violently, under a dose of one milligramme, and in one month of treatment did not react under a dose of one gramme of the pure lymph. In these cases, notwithstanding the fever that necessarily accompanies the reaction, the patients, as a rule, retain their appetite, and increase in weight.

Koch has determined that the treatment does not destroy the bacillus—the seed of the disease. What is destroyed is that which has developed from the tissues under the irritation of the bacillus. If the remedy only did this, Koch's object would not be reached.

There is one means left for curing the tuberculous process. This is, that the lymph should so act upon the system as to render it unsuited to let the bacilli

of tuberculosis develop in it. In other words, Koch hopes that the remedy will confer immunity against tuberculosis in man, as he says it does in the guinea-pig.

Prof. Sonnenburg, under the direction of Koch, has applied surgical procedures to the treatment of cavities in the lungs, by resecting the ribs, and scraping the cavity, then establishing drainage. The case is further treated by the lymph injection.

So far, there are no cases, or at least a sufficient number, to establish that immunity is conferred. Several cases of apparently cured lupus have returned, after a week's cessation of treatment; and as for the apparently cured cases of other forms of tuberculosis, it takes a longer time for a recurrence to attract attention.

As to the evil effects of the lymph, a collapse from even a dose of one milligramme has sometimes taken place; though no death has resulted in that condition. Patients have always been restored by the ordinary stimulants. The most dreaded after-effect, and the one upon which the French lay the most stress, is the possible constant irritation of the kidneys by the lymph, leaving these organs in a permanently impaired condition. Albuminuria and hematuria have not unfrequently been noticed. Whether this was due to the mere irritation of the lymph, or to a local reaction in the bladder and kidneys, because of the unexpected existence of tubercles in those organs, is, of course, impossible to decide.

The contra-indications to treatment are, therefore, those lesions which, when undergoing the reaction, would, directly or indirectly, endanger life. They are principally:

1. Extensive disease of the larynx.
2. Miliary tuberculosis, or very extensive tuberculosis of the lungs.
3. Tubercular meningitis.

Although there have been, by this time, many thousand cases already treated, it will be apparent from the above that the greatest difficulty exists in forming even the slightest idea as to the number of true cures, if any. Of improvements there can be no doubt; but, since tuberculosis is such a slow process, it is manifest that at least two years are required to ascertain positively whether the patient, who after a course of treatment for any form of tuberculosis, has to-day ceased to react, has attained that immunity without which he is not to be called cured of tuberculosis.

In a few cases, a rapid development of tuberculosis has occurred in patients who have been treated with the lymph, and the question has arisen whether the inflammatory reaction had not provoked a migration of tubercle bacilli from the original focus of disease to new localities in the lungs, and, developing there, formed separate and rapidly developing foci of disease? Whether it be really the case, or whether unsuspected tubercles already existed in other parts than where diagnosed, must remain unsettled.

As a summary, therefore, of the present status of Koch's new discovery, we conclude that in our opinion—

1. This discovery marks a distinct epoch in the history of therapeutics. Contrary to our ideas of the physiological action of drugs, this substance acts solely when tuberculous tissue exists in the body. It thus exercises a specific and selective action. And this is the more admirable, as we have all reasons to surmise that the lymph is directly or indirectly the result of cultures of the bacillus tuberculosis.

2. It is, therefore, a valuable means of diagnosis as to even the unsuspected existence of tuberculosis in the body.

3. Under its continued action, tuberculous tissues are destroyed, and, when possible, are cast off by sloughing.

4. No case of permanent cure has, to our knowledge, been positively recorded.

5. The large amount of clinical experience already existing, warrants the further trial and careful observation of the remedy in tuberculous cases.

6. Even should the future prove the lymph unsuited to permanently cure tuberculosis, the discovery will still remain an index for future researches in the domain of scientific therapeutics.

Returning to Paris, I had the honor of submitting to Pasteur the results of my observations in Berlin, as above described. The illustrious scientist was more than delighted at this—the first reliable and impartial account he had had of the doings in the German capital. In view of our past friendship, he expressed himself as interested in the progress of our Medico-Chirurgical College.

Prof. Koch has favored your representative with two bottles of lymph, of five grammes each, for our use in the Philadelphia hospitals, and would be pleased to obtain the results of the treatment.

In closing this report, congratulations are due to the Faculty of the Medico Chirurgical College, for their progressive spirit, recognizing, as they did, at such an early date, the importance of taking early steps in investigating this epoch-making discovery in the history of medicine. Your representative owes additional thanks to those members who procured for him commissions from the Governor of Pennsylvania and the Mayor of Philadelphia, which documents materially helped by adding the weight of civil authorities to that of the Faculty.

It now remains to give my personal thanks to this Faculty for the honor of their confidence and their liberality, and to trust that the fruits of their action in this matter may prove to the continued advancement of the Medico Chirurgical College.

RÉSUMÉ OF PROFESSOR DIXON'S ADDRESS OF JANUARY 16, 1891, ON THE KOCH REMEDY FOR TUBERCULOSIS.

FROM the fact that the Doctor had just returned from Berlin, where he had lived much in the consumption wards of many hospitals, and also from the fact that he had enjoyed the pleasure of receiving prominent medical men from various parts of the civilized world, who called to pay their respects and discuss the new method of treating tuberculosis in its various forms; as well as having talked with Professor Koch, whom he regarded as a modest, polite, honest savant; he expressed himself as believing it would not be out of place to relate, although necessarily in a summary manner, his personal impressions regarding the same. He casually referred to the immensity of the war waged against the human family by tubercle bacilli, and expressed regret when he stopped to realize that Philadelphia had not a well-endowed staff of bacteriological workers.

In speaking of the diagnostic characteristic of the remedy, he expressed faith, as he believed it to be a metabolic product of the tubercle bacillus, and that the active principle composed about one-thousandth part of the menstruum given out by Dr. Libbertz. That the liquid likely contains glycerine, gelatine, and some salt, likely that of gold.

Notwithstanding that he believes it reacts in recognizable tuberculous tissue, he admits that it is yet a question in his mind, whether or not it will not often fan latent tuberculous tissue, that would otherwise have remained inactive, into an active and progressive condition. This possible action, coupled with the fact that we are yet quite ignorant of its final curative power, seemed to satisfy the doctor that it should not, for the present, be used for the purpose of diagnosing.

He was disappointed with its action on human pulmonary phthisis. This arose from the fact that he had met with such success in using his reagent in tuberculosis of the guinea-pig; yet he expressed his old opinion in regard to the possible difference in ordinary tuberculosis in the human economy and that produced by surgical inoculation in animals. Further, he went on to say, that it must be borne in mind that the guinea-pigs used by him were, in all probability, not predisposed to tuberculosis, and therefore the remedy might possibly drive the surgically produced tuberculous tissue to necrosis without affecting healthy tissue, while in human tuberculosis, due to predisposition and the specific poison, the Koch remedy may not benefit but harm tissue not sufficiently tuberculous for it to produce acute inflammation, and thereby cause necrosis. On the other hand, it may render such tissue more susceptible to the action of bacilli. Further, it may enable the bacilli to disseminate through tissue that would not previously support them.

Owing to the fact that all vascular tissue surrounding tubercles, when under treatment, is loaded with small, round cells, and that the hyperæmia is so often produced by the remedy, the alveoli in the periphery of the tubercle are rendered incapable of action; that should the lesion be too extensive, the decrease in the functionable lung parenchyma will prove fatal to the life of the individual under treatment. To obviate such a risk, the doctor suggested administering smaller quantities than any that have yet been administered, so that the quantity might be neutralized before all the tuberculous tissue was reacted upon. In this way only a portion of the tissue would become functionally disabled at a time, and if this could be accomplished, the area of diseased tissue might be advanced on step by step.

He cautioned the profession to exhaust all their knowledge in diagnosing before applying the remedy, even in mild cases of pulmonary phthisis (tuberculous), on account of the possibility of lurking danger arising from latent disease, or a strong predisposition of the tissues to the tuberculosis process. Yet he did not see how we could refuse to administer the remedy to a mild case when requested so to do by an intelligent patient, particularly after the free use that has been made of the remedy in Germany, with so few deaths and reports of harm. When the area of tuberculous tissue is very extensive he was rather of the opinion that the remedy should not be injected.

The symptoms produced by the remedy are about as follows: There may or may not be a chill, followed by a temperature running up to 102° F. to 106° F. This generally subsides within two hours after it reaches its maximum, making it about seven hours after injection. This fever, in other cases, remains up some forty-eight hours. Diarrhœa and also enlarged spleen and lymphatic glands, are frequent accompaniments, following the pyrexia. The patients generally look quite ill. Sputum often increases. The bacilli, at first, often increase in number, and would appear to have a changed morphology.

That is, they become swollen at the ends and show signs of budding. This may or may not be peculiar to the micro-organisms after or during the treatment. Yet he has noticed them more frequently in inoculated cases than in others. This changed form somewhat resembles those cultivated and first described by Prof. Dixon in 1889. He states that the physical signs increase only when new tissue has been made active.

He said that as far as his observations had gone in lupus cases he was unable to see any reasons, other than the possibilities mentioned, why it was not a valuable remedy. In those cases the temperature began to rise in about four hours after the injection of the Koch remedy, reaching its maximum suddenly. This, however, soon fell to normal, and with very anæmic patients it fell to sub-normal. In one case of pernicious anæmia death soon followed the injection. During this treatment a nodular infiltration took place. The œdema in many cases was exaggerated, as the fever subsided. The patient was often much prostrated. The nodules gradually became covered with a crust, under which could be detected a healthy granulation. Young, red cicatrices form under the crusts, and the lupus spots soon assumed an appearance of recovery.

The speaker witnessed one case of a boy ten years old that was apparently making a fine recovery, but just after the injection he broke out in a rash resembling scarlatina, and that the process went on to desquamation; the small, branny scales coming off and leaving a healthy looking skin. In another case of lupus an irritating cough and harsh voice set in after injection. Then small clusters of red excrescences appeared on the right vocal cord. After some days the lupus was tending toward recovery. The vocal cords had improved, and the cough was rapidly decreasing.

That owing to the suppuration caused by the Koch remedy, in the vascular tissue immediately surrounding the tubercles, the remedy is positively contraindicated in tuberculosis of brain tissues.

He had no practical experience in intestinal tuberculosis, therefore could only apply the knowledge gained in other forms.

The doctor saw no reason why a wound, in a patient not predisposed, that had become infested with bacilli could not be successfully treated by the Koch method.

Joint and bone tubercular cases would seem to make better progress when surgically treated, if first treated with Koch's remedy until the tissues cease to respond to the liquid.

The only case of kidney tuberculosis seen by the doctor did not improve under the treatment.

In speaking of laryngeal tuberculosis, he referred to what was said of pulmonary phthisis. He believed that an extensive area meant danger, and, owing to the fact that it was almost universally accompanied with pulmonary lesions, a most thorough examination must be made of the lungs before injection was indulged in.

Dr. Koch, in his conversation with Dr. Dixon, seemed to be sufficiently sanguine to advise a special ward built for lupus and mild laryngeal cases, but not for pulmonary cases. Dr. Dixon added that he would be anxious even about the treated lupus cases for at least a year to come.

During the address the lecturer ventured to give a possible theory of the action of a product of tubercle bacillus. He believed it was possible that when the bacillus came in physical contact with animal tissue its system was stimulated to secrete that which changed the chemical arrangement of the tissues, and rendered

them suitable for its power of absorption. That is, it poured out its digestive ferment, and thereby digested the tissues. The effect on the tissues would appear to be an inflammatory one, of a degree peculiar to the action of the tubercle bacillus, and suited to its existence. And if this were an explanation of the process, we would seek to cultivate the organism on an artificial medium, and then isolate in a concentrated form that which broke up tuberculous tissue. By injecting it into the general circulation of the animal economy, already the habitat of the tubercle bacillus, it would meet the normal secretion of that micro-organism. That the quantity of this normal secretion of the tubercle bacilli in the tissues being just sufficient to render them suitable for absorption, but as soon as the excess was artificially added, the inflammatory condition of the tuberculous tissue was driven beyond that degree suited for the life of the exciting micro-organism. The tissue would be cut off, and the organism would fall from the newly-formed surface.

DELAYED OPERATION IN PYOSALPINX— NOT AN UNUSUAL HISTORY.

BY A. B. HIRSH, M.D.,
PHILADELPHIA.

AFTER all the long discussions in the special and general medical societies, and many journal articles covering in detail the subject of pelvic inflammations consequent upon parturition, such a series of symptoms as are here recorded would seem well nigh impossible, when occurring in the practice of the modern physician. There is implied the publication at length of every case of the kind, until the frequently recurring examples shall awaken every practitioner to a prompt diagnosis and the urgent necessity for early surgical interference.

Early on the morning of May 11, I was asked to see Mrs. L. N., for relief from agonizing pains which the husband indicated as radiating from the right iliac region. Lying upon the right side, her knees were flexed upon the chest, and every effort made towards immobility of the parts and relaxation of the abdominal walls.

I found her to be a sparely built patient of nervous sanguine temperament, petite, brunette, twenty-five years of age, married six years, and the mother of one healthy child.

Her first child, born after a normal though prolonged labor, had died from an enteric affection; the second, a fine boy, was now three and a half years old; and since his birth there had been three or four miscarriages. She had enjoyed robust health previous to the last of these, which occurred some two years ago, and was followed by peritonitis (?) which at the time seemed to respond to treatment. There exists a questionable history of malaria, but of no other cachexia, and a positive absence of gonorrhœa. Ever since, however, there have been recurrences of "cramps," during the temporary interludes of which she was able to leave her bed to follow household and social duties, so that she deferred visiting her physician for more active investigation and treatment.

For over a year past, Mrs. N. was able to locate the pain as always originating from a spot as large as a silver half dollar, and just to the right of the median line of the body. There were present a feeling of distension, worse during menstruation (which flow *en passant* had always been irregular in date of appearance), together with the sacral pain, slight leu-

corrhœa, and other abdominal symptoms usual to these cases. Her present attack, however, now of over a week's duration, was from the beginning of unusual severity, being attended within the last twenty-four hours by rigors and lancinating pains, which compelled her to keep the position already mentioned.

The instructive features in this case are due to an irregular practitioner being called in at this time, who insisted that merely another miscarriage was in progress, although but little hemorrhage was noticeable. Then he proceeded to explore the uterine cavity with the sound, but did not entirely succeed, because, anæsthesia not being employed, the patient strenuously objected; the pain produced, she remarked, being excruciating. There was no relief from the pain which, despite of frequent hypodermic injections of morphine, became paroxysmal and more aggravated than ever before. Although diuresis was normal, she became constipated, and this added to the difficulty of the situation; her sole relief was to maintain a semi-recumbent posture.

During all these seven days there had been not even a suggestion by the medical attendant of a consultation, nor had he seemingly even recognized any suspicion of the condition present, but allowed his almost exhausted patient to continuously suffer, while obstinately "proving" his quixotic "similars."

Bimanual palpation showed the existence in the right true pelvis of a tortuous and excessively tender body, the size of an orange, suggestive of hydro or pyosalpinx, while all the correlative symptoms were of an acutely localized peritonitis. The anxious expression, the pinched face, a temperature rise—all these, besides, warranted a diagnosis of salpingitis, and the indication, above all, for prompt removal of the offending organ. This being my first visit to the case, the foregoing history was finally elicited, so that I might be prepared to operate, if necessary. Having, however, arranged a previous engagement in the country for that morning, in an abdominal case, I was compelled to defer interference until three o'clock in the afternoon, in the meanwhile quieting the more urgent symptoms by an icebag placed over the epigastrium.

Let me here mention a ready means I employed of obtaining pure air and a clean operating room. Before leaving the house at my first visit I had ordered the ceilings and walls to be swept of dust; all wood-work wiped with dampened cloths; and a boiler of water to be kept steaming in the room to settle the atmosphere. Then, when ready for the operation, clean bedsheets tacked over the carpets made an ideal room for the purpose.

Ether was the anæsthetic employed, preceded by a hypodermic injection of atropia gr. 1-150 and morphine gr. $\frac{1}{4}$, and the short abdominal incision made. After pushing upward the overlying omentum, however, and finding uterus, adnexa and other pelvic contents matted together by general adhesions, fearing a rupture of the abscess sac, I found it necessary to lengthen the wound towards the umbilicus. Then, by gradual manipulation with the fingers, the appendages on the right side were, with difficulty, so far enucleated as to be gradually raised to the surface and tied off by a double interlocking ligature of No. 4 cable twist; a good pedicle was thus obtained. The adherent fundus was next loosened from its adhesions, as was also the left tube and ovary, which, enlarged to the size of an English walnut, and the seat of much pain to the patient, I at the same time removed. The uterus was found empty and firmly contracted.

Repeated flushing of the belly with boiled distilled water showed but very little oozing of blood, and not any leakage of pus to have occurred, so that, after depositing a small caliber glass drain in the lower angle of the wound, its margins were approximated; a moist sublimate gauze dressing, with aseptic rubber protective, applied, and the patient returned to bed.

The reaction was but slight, so that hot water bottles were scarcely necessary; in fact, the convalescence was uninteresting, except for the ligatures upon the stump of the right side, which did not become encapsulated, and were discharged some four months later. All signs of invalidism have now disappeared so that the patient enjoys vigorous health.

It remains to be added that menstruation continues and, curiously, appears every four weeks with a regularity and painlessness unknown to her, it having previously varied from the fifth to the seventh week. As explained by Tait, menstruation after removal of the appendages is due to the presence of ovarian stroma somewhere in the remaining pelvic organs, a condition existing in about three per cent. of all such cases operated.

If this example teaches us any lesson at all it is that we must invariably obtain a full and complete history of the earlier symptoms in every case; that bimanual examination is necessary in the diagnosis of pelvic affections, to the exclusion of the now obsolete intra-uterine sound; that it does not follow as a matter of course that every instance of acute uterine hemorrhage is to be attributed to a miscarriage. Finally, morphine is an exceedingly bad substitute for a doubt in diagnosis.

CONSTIPATION FROM A SURGICAL POINT OF VIEW.

By C. ELLSWORTH HEWITT, M.D.

A REPORT of fifty-eight cases which required surgical aid for their cure. All of these cases, without exception, had been purged over and over again for constipation, when there was really a mechanical cause, or when the system was not in a proper condition to assimilate them. In constipation there is a lack of vitality and of the power to absorb or assimilate, therefore drugs may accumulate, and themselves add to the disturbance of the system instead of relieving it. No doubt the first beginning of constipation may be cured by the use of drugs, for then the patient is in a good state of health; but of late, previously to the medical treatment of bad constipation, I always empty the colon and rectum of the poisonous contents by a copious enema. The ordinary enema tube is too small, the opening does not allow a sufficient volume of water to be poured into the bowel at one movement of the piston. A large jet of water breaks up a mass of feces, while a small jet only gently plays upon it. I had my instrument maker make me a tube six inches long, with the caliber one-third of an inch in diameter, and the opening at the top. After carefully clearing out the rectum and finding no stricture, polypus, piles, fissure or any other local trouble that might give rise to the constipation, I give a favorite pill of mine, one of which I have used in all of the above fifty-eight cases, consisting of massæ. hydrarg., ext. colocynth comp., ext. jalap, of each 1 grain. For an adult I give the pill, one night and morning, for two days; one pill at night for five days; one every other night for ten days; one every third night for seventeen days, and finally one each week for one month, tell

ing my patient to go to stool at a regular hour each day.

Mr. W. H. Llewellyn, of Philadelphia, has very kindly prepared the pills for me in almost every style. I had him make them in compressed form first; but the taste was so intensely disagreeable that I found capsules a convenient way to give them; but he now makes them with a sugar coating, and, as I find them very soluble, I invariably prescribe them this way.

Twenty-one of the fifty-eight cases were brought about by the patient not going to stool at fixed times, or resisting the call of nature. Then, later on, when it is convenient for him, he tries to make his bowels act when nature is reluctant, and no evacuation follows. Then he waits another day and does not respond to nature's promptings; in time the colon and rectum resent this treatment and fæces begin to accumulate, and the bowel, over-distended, cannot act with its usual force; the fluid matter of the fæces becomes absorbed, leaving the fæces themselves hard and dry, and, the muscular tissue of the bowel being ill-nursed, cannot exert sufficient power, and the patient, on going to stool, strains, often with no result. From that straining, and the irritation set up by the fæces the sphincters become hypertrophied and thrown into spasm. In consequence of this, when he is told to bear down, no dilatation of the anus will follow. The anus pouts out like a nipple, and, upon introducing the finger, the sphincters are found to be tight and broad. In all the above cases I use forcible dilatation, followed by the daily passage of bougies for one month, then each week for another month, at the same time giving the above pill in the same manner as I have described above. I cite two cases of particular interest.

On August 3, 1890, I was called to Long Branch, to see a lady from Philadelphia. She was sixty-three years old, married, and had been told by two surgeons that she had a tumor. For three years she had used an enema daily, and up to two years ago had used almost every known purgative, but had finally abandoned them. Upon external examination I did find quite an enlargement; but, after I had thoroughly cleaned out the colon and rectum with my long tube, no tumor was felt, and I got rid of an enormous quantity of fæces. Then, upon examination, I found the sphincters hypertrophied and in the condition that I have described above. I used forcible dilatation and the passage of bougies, with the administration of the pill mass hydrarg. comp., for two months. Massage treatment was given every day. Her recovery was complete.

Mr. G., an iron merchant of Pittsburgh, came to Philadelphia for treatment; stopped at the Lafayette hotel, and consulted me on June 12, 1890. He was thirty-five years old, unmarried, had suffered for eleven years with constipation. He, also, had been told by his physicians that he had a tumor. The amount of purgatives and enemas that he had taken was enormous. Two years ago he had been advised to use glycerine as an enema. This had done very well for a few weeks, then that was found to be of no use whatever, and did not act even when large quantities were injected. After examination, I found a similar condition of affairs as in the above case. After forcible dilatation, bouging, and internal administration of the pill mass hydrarg. comp., proper diet, and a thorough course of exercise, the patient left my care after ten weeks, and went home entirely cured.

Three cases were caused by congenital narrowness of the anus. One was the case of a young woman, twenty-two years old, who said she had always been costive, and obtained relief only when the contents of the bowels had been made liquid by purgatives. On examination, I found the anus so small as not to admit my little finger. The sphincters were divided in this case, followed for two weeks by the use of bougies and the pill mass hydrarg. comp. The result was perfect.

Another of this class was a boy, sixteen years old, who had suffered similar to the above case; but I succeeded in effecting a cure by forcible dilatation, and using bougies with the aid of the pill without dividing the sphincters.

Nine cases were due to stricture; seven of these were simply strictures, and situated less than two inches above the rectum. Incision was made through the stricture and dilatation commenced the next day with bougies, with the internal administration of the pills. The other two cases of stricture were accompanied by ulceration, and more than two inches above the rectum, and had specific origin. These were dilated with bougies; pill mass hydrarg. comp. was given, as well as specific treatment, and they have recovered from the stricture and constipation.

One case was caused by polypus in the uterus. This caused the trouble by pressing upon the rectum. After their removal, and the administration of the pill mass hydrarg. comp., there was no further trouble.

Twenty-four cases were due to piles. I will not here describe the symptoms and operation of these cases, for they are so familiar, even to the ordinary physician; but will state that after their removal or cure by treatment, and giving the pill mass hydrarg. comp. from three to five weeks, they all recovered.

One case was due to hypertrophy of the prostate glands. It was exceedingly interesting. Mr. L., thirty-four years old, a gentleman who had been troubled with constipation for eleven months. He had tried purgatives and other medicines without relief. On examination I found he had belonged, in his younger days, to a military company, and had been used to riding horse-back a great deal. Also, seventeen months before, he was troubled with constipation. He had had gonorrhœa. Previously to this he had been an indulger in excessive venery. Eleven months before he consulted me he noticed a frequent desire to urinate, and distress at the neck of the bladder. This, in time, became worse, and the patient urinated with the greatest difficulty. He complained of the rectum never feeling entirely empty, even after the most thorough purgation, but as if it contained a lump, and the fæces were always in a flattened form. Upon examination of the urethra, the prostate was found to be hypertrophied. The patient was given soft vulcanized catheters, to draw off the urine, twice daily. Bougies were passed into the urethra with the view of subjecting the prostate to pressure and dilatation, after the manner of Mr. Harrison, of Liverpool, to regain control over micturition, at the same time giving fluid extract of ergot. The patient was kept in a recumbent posture as much as possible. The pill mass hydrarg. comp. was given; the bladder was washed out occasionally, and bougies were used daily in the rectum. To my great surprise, the patient seems to have entirely recovered, as he has no trouble whatever with his urine, and has a movement daily.

FIFTY REMEMBERS FOR DRUGGISTS.¹

By H. M. WHELPLEY, M.D., Ph.G.

REMEMBER that saltpetre and sulphur may explode, if pounded in an iron mortar.

2. Remember that powdered camphor can be kept in the pulverent form by the addition of $\frac{1}{2}$ per cent. of oil of vaseline.

3. Remember that a "want" book is of no value unless used.

4. Remember that sugar added to ordinary ink forms a good copying ink.

5. Remember that quinine will preserve mucilage, paste, etc.

6. Remember that aniline colors fade with age. Records should not be written with aniline ink.

7. Remember that kid gloves can be cleaned by rubbing them with a clean chamois, dipped in sweet milk.

8. Remember that sulphuretted hydrogen water is best preserved in glass-stoppered bottles, with the stopper protected by vaseline.

9. Remember that cherry laurel water and morphine salts are liable to form the poisonous cyanide of morphine.

10. Remember that powdered rosin may produce spontaneous combustion.

11. Remember that an application of a weak solution of hydrochloric acid, followed by a weak solution of chlorinated lime, will remove logwood stains from the skin.

12. Remember that rose water made with carbonate of magnesium, and used to make eyewater by dissolving zinc or lead salts, will form an irritating precipitate.

13. Remember that many celluloid articles can be mended by covering the edge with glacial acetic acid pressing them firmly together until dry.

14. Remember and mix acids with water by pouring the acid into the water and not the water into the acid, as the latter process may cause an explosion of steam.

15. Remember that ethereal solutions of iodoform are not permanent.

16. Remember that prescription vials are not always accurate measures, and the quantity of liquid to be used should be measured in a graduate.

17. Remember that the granulated gum arabic dissolves more readily than the powdered.

18. Remember that chloral and cyanide of potassium mutually decompose each other, and that hydrocyanic acid is one of the products.

19. Remember not to keep books of reference where you cannot find them.

20. Remember that it is wrong to accept apprentices who do not like the business.

21. Remember and do not permit graduates, mortars, etc., to stand around dirty. It is much easier to clean them immediately.

22. Remember and do not lose your presence of mind when an accident occurs.

23. Remember that a physician's patronage may cost you more than it is worth if you are over-anxious to hold it.

24. Remember that the druggist should be able to detect any adulterations liable to occur in the medicines he sells. Ignorance is indicated by the excuse, "It was sold to me for the genuine."

25. Remember that the official chemicals are not always "C. P." The terms "U. S. P." and "C. P." are not synonymous.

26. Remember that the antidotal treatment for the

most common poisons should be familiar to druggists. It is not sufficient to know where to find them.

27. Remember that pyroxylen should be kept packed in glass, and moist with its own weight of water.

28. Remember that glycerine administered in large quantity may produce poisonous symptoms.

29. Remember that when alcohol and water are mixed, the combined volume is less than the sum of the two separate liquids.

30. Remember that alcohol stains varnished surfaces.

31. Remember that the druggist who makes a failure of his own business knows how to run every other store in the neighborhood.

32. Remember that moistening aconite tubers with alcohol before powdering in a mortar will prevent the irritating dust from rising.

33. Remember that carbolic acid is combustible.

34. Remember that the National Formulary is the authority for non-official preparations.

35. Remember that iodine and the iodides precipitate the alkaloids.

36. Remember that scaly iron salts dissolve more readily by adding the scales gradually to the menstruum than by triturating in a mortar.

37. Remember that it is never safe to manufacture a preparation from memory. Always have the formula before you.

38. Remember that acetate of lead loses some of its acetic acid when exposed to the air.

39. Remember that cocaine and borax form an insoluble borate of cocaine, while boric acid and cocaine do not.

40. Remember that black lead is not plumbum, but a form of carbon.

41. Remember that eulyptol is a proprietary preparation, and differs from eucalyptol.

42. Remember that the metric system has been adopted for the seventh decennial revision of the U. S. P., and it is time to learn the principles of the system.

43. Remember that five parts of phenol with ninety-five parts of water, or five parts of water with ninety-five parts of phenol, form clear mixtures.

44. Remember that the American Pharmaceutical Association meets at Old Point Comfort, Virginia, September 8, 1890, and that every druggist here should attend.

45. Remember that learning the answers to a set of examination questions does not prepare you for an examination.

46. Remember that Bastin's New College Botany and the fourth edition of Maisch's Organic Materia Medica, are two books which should be possessed by every pharmacy student.

47. Remember there will be plenty left to learn, even if a clerk studies several text-books before he enters a college of pharmacy.

48. Remember that your certificate of registration should be prominently displayed.

49. Remember that many cabinet specimens of drugs and chemicals are easily ruined by rough handling.

50. Remember and eat at regular hours, and take the usual amount of time for meals that other business men enjoy. Few things make a person ill-natured quicker, and renders him more unsuitable for business, than irregular habits about eating. I think that much of the proverbial crabbedness of druggists is due to their habits of eating behind the prescription case, where they are frequently interrupted by customers.

¹ Read at the Missouri State Pharmaceutical Association, 1890.

THE PROSTATIC ELECTROLYZER.

THE NEWLY INVENTED INSTRUMENT FOR PROSTATIC TREATMENT.

By JOHN V. SHOEMAKER, A.M., M.D.

THE efficiency of the galvanic current from the negative pole, in reducing hypertrophy of the prostate, has been and is being daily demonstrated. It remained for a long time, however, a desideratum to find the best mode of administration of the current to the gland. Its administration through the urethra, unless for the relief of certain kinds of stricture, within the lines laid down by Dr. Newman, is not, for several reasons, an advantageous mode for the relief of prostatic enlargement. One of these is that a bougie, adapted by its smallness to urethral treatment, conveys to the prostate an insufficient current for the purpose of its relief, or else one so concentrated as to be beyond the tolerance of the patient, and too severe for the affected organ. Were these not good and sufficient reasons against this procedure, the indisputable fact remains to be cited, that some persons do not bear even simple catheterization at all well, and that electrical treatment of the prostate must be frequent to be efficacious.

Dr. Keith, of Edinburgh, not long since said, in the *British Medical Journal*, that if one could lift the veil of the past, there would be revealed a great vista of human suffering which modern knowledge of and practice in electricity would have alleviated. Firmly holding with him as to this view, and in particular, upon excellent authority, as to the best and only real mode, at present known, of relieving hypertrophy of the prostate, we have no hesitation in defining this as the only truly remedial treatment known for hypertrophy of the gland in restoration of its functions, operative procedure looking, as is evident, to its greater or less destruction.

To realize, in addition, the efficacy of the instrument lately invented, which forms the special subject of this article, it will only be necessary to compare with the mode of treatment that it involves, that which, from its frequency, we may designate as the present general mode of administration of the galvanic current to the prostate. This is by the negative pole, represented by the olive-shaped bulb-electrode, introduced into the rectum, until it rests above the prostate, the current passing by placing on the thigh the "indifferent" positive pole, masked by a moistened sponge. It ought to be evidence that the prostate is not thus treated to the best of advantage; that, in fact, we cannot know how much or little of the current is passing through the organ. But this is by no means all, nor the worst that can be said of this mode of treatment. Given by the physician, it also ignores the circumstance that only the patient can decide, through sensation, what is agreeable to him and conducive to his good. It follows from this last consideration that the patient, and only the patient, should be the person who, under the immediate direction, or with the general advice of a physician, should administer the current to himself. And this is additionally imperative, from the fact that any one suffering from hypertrophy of the prostate should have a battery absolutely at his command, for prompt administration of the current in the emergency of attack growing out of gouty or rheumatic diathesis, and even apart from these conditions, for the daily treatment that reduction of a highly hypertrophied gland necessitates, down to the time when, the affection being sensibly relieved, an occasional adminis-

tration of the current suffices for the patient, until a permanent palliation or a radical cure is effected.

The resistance to the current varies, in different conditions of the parts from 2,500 to 3,000 ohms. Under this range of conditions the milliampèremeter indicates, with a proper current for the treatment, from two to three millianpères. Exceptional cases bear much more, but this suits most patients, the duration of administration being for the average from three to five minutes after the current is felt to be flowing freely through the prostate, and an agreeable sensation of warmth, relief, and comfort has supervened. The instrument referred to is simplicity itself in its adaptation to this purpose. It is never necessary to attempt to secure complication—it only too frequently comes of itself. It is accomplishment of purpose, with simplicity of mechanism, that is the difficult thing to achieve. This instrument, through its mechanism, administers the current just as easily, and in the true direction, as an enema-pipe performs its function. The patient frequently obtains from a single administration of the current instantaneous relief from all pain and distress. We had one case lately in which the gland was enormously enlarged and the suffering acute, where relief for exactly two weeks followed the only administration that the person had, up to that time, received. Digital exploration soon evidences a reduction of the hypertrophy of the gland. Often only a few administrations are necessary to relieve pressure upon the urethra and to restore ease of micturition. It is not too much to claim, upon the basis of our own experience and that of competent authority which reaches us, that in the great majority of cases, if taken in time, the disease can either be radically cured, sensibly abated, or at least divested of pain. It should also be added that simple irritation of the neck of the bladder, uncomplicated with disease of the prostate, is also relieved by the same treatment with this instrument, which, of course, from difference of anatomy in the sexes, would not be applicable to the female bladder.

In calling attention, in the interest of the profession and the patient, to this new instrument, it does not fall within our province to summon certificates to the aid of our statements. That will come within the province of the manufacturers of the instrument, E. A. Yarnall & Co., of whom all details may be learned, including those relating to a small but very efficient battery that has been devised for use with the electrolyzer. We are, however, pleased to be able to say that it was at our own instance that the inventor of the instrument was led to devise it for the purpose of an efficacious galvanic prostatic treatment such as did not previously exist. After its construction, it was shown to some distinguished surgeons, and passed the ordeal of their decision as to its anatomical adaptation to the best advantage for the purpose for which it was devised.

It is a patented article, but patented by one of the laity, no physician having any pecuniary interest in it. In saying this we gladly seize the opportunity of uttering a long-contemplated word regarding what is deemed by the profession generally as an integral portion of its ethics. The majority seem to confound medicinal nostrums with patented mechanical contrivances. But they are, in point of fact, antipodal, because one professes to conceal, and does conceal, while the other professes to reveal, and does reveal. The very idea of "patent," underlying the etymology of the word, is exposure to public knowledge. The effect of the maintenance of the false ethical standard to which we are referring is manifold, leading to the

temptation on the one hand, to evade the restriction by subterfuge; and on the other, to defy the formulated rule of the profession. But the worst effect to which this false ethical standard leads is to large abstention, under compulsion, from the production of what, under more favorable auspices, would accrue to the benefit of humanity. We may rest assured that the day is not distant when the dictates of common sense will lead to the abrogation of the rule, and leave to the physician the free agency in this particular, which he enjoys with his fellow men in other matters, for his freedom in it is in the interest of the world as well as in his own. Patent, while tending at least to avert personal loss, enlists personal interest in general welfare. It is advantageous to the public as security against degradation in manufacture, and renders possible gift to the world which would be absolutely impossible to philanthropy the most enlightened and well-endowed with wealth. Ours is not the first protest that has been raised against the false ethical standard of which we have spoken. We do not claim priority in the perception of its absurdity, we but join our testimony to that which has already condemned the view that is the basis of the rule observed, as an entirely incorrect one, repugnant to modern lights.

If any of our readers would like to learn more regarding rectal treatment within the lines within which we have had personal experience, we beg leave to refer them to the articles on "The Use of the Galvanic Current as a Laxative," *Medical Bulletin*, June, 1890; and "The Galvanic Current as a Laxative," *Medical Bulletin*, August, 1890.

1519 WALNUT STREET, PHILADELPHIA.

Society Notes.

PHILADELPHIA ELECTRO-THERAPEUTIC SOCIETY.

THE monthly meeting of this society was held at 2005 Arch street, on December 11, 1890. The President, Dr. G. Betton Massey, in the chair. Wm. H. Walling, M.D., Secretary.

After the reading of the minutes, which were approved, DR. MASSEY took the floor, and made the following remarks regarding Damion's method of treating fibroid tumors, which consists in vaginal applications, with voltaic alternatives, without shock, the current strength varying from 80 to 120 ma. As a procedure it was worthy of consideration. Dr. Massey was inclined to think that the secret of the treatment of fibroids, as in all galvanic applications, lies in polarization of the tissues, hence Damion's method would be of value when Apostoli's methods were contra-indicated. Dr. Massey has modified Damion's method by using intra-uterine voltaic alternatives, without shock. For the use of this method, the Massey controller was of positive value. He also thought that the method under consideration would be of great use in enabling us to give more frequent treatments with current strengths going up from 150 to 200 ma.

DR. BIGELOW said it was necessary to understand the pathology of pelvic disease before we could form a just estimate of the value of electrical methods. We are often charged by the surgeons with faulty diagnosis, in mistaking simple uterine hypertrophy for uterine fibroids. This seems to be absurd in view of the fact that fibroids commence as hypertrophies.

Any hypertrophy is synonymous with hyperplasia, and hyperplasia is a diseased process by which normal cells become abnormal in their rapid multiplication, so that the healthy cell is not able to transmit its office of health, but partakes (?) itself of the habit of multiplication in its neighborhood. This, indeed, is the modern view of cancer—that the typical cell is merely a modified normal cell, which crowds in among the healthy cells, pushing them out of place, and thus invading healthy tissue. Who so profound a diagnostician as shall tell us where the hypertrophy ends and the tumor begins? Just how the galvanic current acted upon a tumor in diminishing its growth, it was difficult to say. Probably electrolytically, and also by setting a different orientation of cells. We should not forget the germicidal action also of the current, which is a most important factor in the treatment of endometritis. Of Damion's methods Dr. Bigelow did not have a high opinion, because the current could not be made to penetrate the tumor, but followed the course of the least resistance, which is, of course, peripheral. The normal resistance of the healthy body is 4,000 or 5,000 ohms with 14 volts, so that we can form some estimate of how great it must be in cases of dense fibroid growths. Dr. Bigelow had never seen a fatal result at Apostoli's clinic, nor, indeed, any woman who suffered from any sequelæ. Apostoli he considered to be one of the most acute diagnosticians that he had ever met.

DR. VICTORIA SCOTT-HAENSLER asked how we could reach all the diseased surface in intra-uterine treatment. In one case under her care she used a zinc electrode, but could not reach all the parts.

DR. BIGELOW favored dilating the os, so that the whole of the endometrium might be acted upon with a suitable electrode. In Europe the electrical treatment of endometritis, etc., was gaining in favor, and physicians now send patients to Apostoli for such applications.

In answer to a question, DR. MASSEY stated that he used clay with currents of over 100 ma. in strength. He called attention to the treatment of pneumonia by means of galvanism, regarding it with disfavor, because of its galvanizing effect upon the heart.

DR. WALLING replied by saying that in the treatment of pneumonia with electricity the current should be applied to the chest and not to the sympathetic nerve. It is a well known fact that when the vital powers are lowered, strong currents applied to that nerve, arrest the heart in diastole, while mild currents strengthen the heart.

DR. TAYLOR asked, if inflammations in other parts were amenable to electrical treatment, why not pneumonia?

DR. MASSEY was opposed to temporizing in such cases, but favored resorting to venesection at once.

DR. WALLING said that the patient needed all the blood to sustain life, and opposed venesection.

DR. TAYLOR said that we should have some cardinal principles laid down, and proceed from them; until that time we were empirics.

DR. WALLING referred to some investigations he was making, regarding the physiological and therapeutic action of positive and negative static insulation. He had found that in some cases the positive insulation had a constricting effect upon the vaso-motor system, while the negative had the opposite effect.

A paper was presented by Dr. Walling, entitled: Electricity as a Remedy in Diseases both Acute and Chronic, with Cases; but the hour for adjournment having arrived, there was no time for its discussion.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Jan. 17, 1891.

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THE REPORTS OF DRS. LAPLACE AND DIXON.

IT is with great pleasure we present to our readers in this number the reports of Professors Laplace and Dixon concerning their recent visits to Berlin. No two men could be found on this side of the Atlantic better fitted to investigate this subject; and no reports that have yet appeared compare in value to these presented by them. Professor Laplace obtained his degree from the Faculty of Paris, and spent some time in Pasteur's laboratory. He then went to Berlin, and in Koch's laboratory made the investigations upon antiseptic solutions that have made his name so well and so favorably known. When Pasteur read the report now presented, he pronounced it the first wholly competent and impartial account he had received. The Medico Chirurgical College is to be congratulated upon having so capable a man in their Faculty, and upon the promptness with which he was despatched upon this important mission. The liberality with which the lymph, procured at such great expense, was shared with the City Hospital, should not go unnoticed. So far as our information extends, those who have been so fortunate as to obtain any lymph, have retained it for their own benefit and that of the institutions with which they were connected.

Professor Dixon's report will also be read with much interest. His reception in Berlin, after the absurd newspaper reports of his claims had been corrected, showed what importance is attributed to his work by the German scientists. Dr. Dixon is a quiet, unassuming man, but an indefatigable worker. He has done too much and too important work in the field of bacteriology to be allowed to drop it. The American people owes it to her real workers that they shall no longer be neglected. We have here men as brainy, as intelligent, as earnest, as capable in every way as any German that ever tasted beer. Why is it, then, that the world runs to Germany for its science? Why must a Laplace go to Berlin to have his work valued at its proper worth? Why must a Dixon see his discoveries developed into scientific, tangible entities by

Germans, when there are men fully as capable of accomplishing this work in our midst? Because we Americans are a selfish and short-sighted race; because our only measure of success is the dime, that we hold so closely before our eyes that we can neither see the dollar beyond it, nor the glorious promise of the future very far beyond the dollar.

Now that the possibilities of good that reside in this discovery of Koch, and the future development of the ideas upon which it is based, are opened to the public, there should be no hesitation as to the duty. Philadelphia owes a laboratory to Dixon and Laplace, and to every other capable man who is impelled to work in this promising field. Let our countrymen have an equal chance with foreigners. Let Philadelphia give to the medical profession that has honored her for nearly two centuries, above every other American city, such a laboratory as will assist us in regaining the supremacy we have lost through lack of public support. We want a Public Laboratory; not one which is monopolized by a single college, from which all others are jealously excluded, so that its work is first for the benefit of the institution, and next for science; but one where every earnest and capable worker can find his opportunity. The thing can be had for the asking. Who will set the ball rolling? Are there not men and women whose hearts still ache for loved ones torn from them by that terrible enemy of our race, consumption, who will take the initiative in this matter?

HAVE WE THE GRIPPE?

IT becomes more difficult every week for the family physician to believe that our old enemy, the influenza, is not present. Indeed, it seems as if he had come to spend the winter. At no time during the past fifteen years has there been such a general prevalence of catarrhal affections of such severity and obstinacy; and with such a tendency on the part of those affecting the bronchi to invade the lungs. A glance at a visiting list opened upon January 1 shows a long array of patients with tonsillitis, laryngitis, naso-pharyngo-laryngeal and bronchial catarrhs, catarrhal pneumonia, lobar pneumonia, intestinal and vesical catarrh. With these there are no less than three of those peculiar cases of fever to which it is difficult to give a name. The patient is attacked with fever, shivering, headache, aching joints, restlessness, perhaps a trifle of delirium. No evidence of local trouble can be elicited. He is said to have "caught cold." Sometimes, after a few days of these general and indeterminate symptoms, lobar pneumonia develops. But in other cases, not distinguishable from the former, the symptoms subside, and the patient is well. In a third group, the recovery is only apparent; and the first time the patient goes out—it may be against the advice of his physician—he comes home with a "fresh cold," and dies of pneumonia within forty-eight hours. How often is this history repeated during a winter, especially with business men on the shady side of fifty. We believe that we express the opinion of Philadelphia practitioners generally when we say that these attacks of "cold" give rise to solicitude and anxiety on our part which

was unknown previous to the advent of the influenza.

Nevertheless, the mortality of the city is not larger than usual at this season. While pneumonia prevails to some extent, it is not unusually fatal. Nor is there any such increased fatality in ordinary diseases as would be noted if there were really a return of influenza. An increased susceptibility to catarrhal affections, an unusual severity in catarrhal attacks, characterizes the present season; and that is all.

Annotations.

ON ORGANIZING AN OPERATION. — THE TALK OF AN EXPERIENCED OPERATOR.

DR. W. W. KEEN, of Philadelphia, has published a pamphlet (which is reprinted from the *American Journal of the Medical Sciences*) stating in the plainest possible terms the proper way to prepare for an operation. Every surgeon should get a copy of this pamphlet and study it closely. It begins with a full description of every article needed in the sick room at the time of the operation, together with the method of treatment of the patient in preparation for the occasion, and a complete list of medicines. Then follows a list of the instruments necessary for each kind of operation, prefaced by a "general list of instruments," and followed by comments on and explanations of the various instruments required. Dr. Keen shows himself to be not only wide-awake and practical, but, what is far rarer, very methodical in all his ways. For instance, after having enumerated all the particulars we have mentioned, he says: "Before an operation I run over each item, first in the 'general list' of instruments, etc.; secondly, the list of instruments for the especial kind of operation to be done, and, lastly, the 'special list' of instruments." And, too, Dr. Keen expects, as he is warranted in expecting, that everybody else concerned in the operation—patient, nurse, and attending physician—will be in readiness, with the necessary implements at hand, so that there may be no delay, no hurry, no cause to turn aside from the purpose in hand. If every graduate from our medical colleges could have this pamphlet put into his hands, and would give it the consideration it deserves, we should find a growing knowledge of the performance of surgical operations and, we hope, a diminution of the blunders sometimes occurring in this branch of medical science.

Letters to the Editor.

TREATMENT OF PNEUMONIA.

I can most heartily endorse Dr. Waugh's views as to the treatment of pneumonia. My experience, gained during twenty years' practice, coincides with his entirely. I have never lost a patient with pneumonia between the ages of two and fifty. I attribute my success to the efforts I make to guard the action of the heart. The secondary pneumonia of babyhood is easily overlooked, and very fatal. In patients beyond fifty years of age, we meet with senile hearts—prematurely so—that make recovery impossible.

I am indebted to Dr. Alfred Stillé for my success in the treatment of pneumonia, who, at my final examination, asked, "What effect has bronchitis upon

the heart?" It made an indelible impression upon my mind.

Many physicians, in lauding a special remedy or particular treatment in pneumonia, forget that probably three-fourths of the cases of pneumonia met with in private practice would get well without any special treatment. It is among the remaining fourth our skill must be exhibited.

J. B. BASKERVILLE, M.D.

HOLLINS, VA.

DOSIMETRY.

MANY thanks for your articles on dosimetry. I can but think your ideas are correct, and that the younger members of the profession are being misled a little by Burggræve and his followers. To use the pure alkaloids instead of crude drugs, seems very plausible on the face of it, but the final results are not given.

I regret that our manufacturing chemists do not make pills, etc., of smaller dose. I am convinced that in many cases small doses, frequently repeated, are far better than larger doses at longer intervals. For instance, I have better success with $\frac{1}{2}$ -grain quinine every half hour, for four hours, than I would to give 4 grains at one dose every four hours, or double that dose. I wish I had a $\frac{1}{4}$ -grain pill; I would certainly give it every fifteen minutes, and confidently expect better results.

I beg you not to consider me homœopathic in my ideas, but I certainly believe that our advancement in therapeutics will be in that direction. Dr. Aulde is doing a good work, but I regard him as a little extreme in his views; $\frac{1}{3200}$ -grain cupric arsenitis is a little too infinitesimal for a regular. D. J. T.

CUBA, N. Y.

GO WEST.

"GO West, young man, and grow up with the country." This was the advice given by Horace Greeley, not particularly to graduates of medicine, but to the world of young men at large. As it is near the time for the colleges to turn out a number of defenseless young men on the cold world, I thought my experience might be of some value, as one should know something of where he is going before buying a railroad ticket to the Pacific ocean.

When I graduated from an Eastern medical school and spoke of going *West*, my friends said that was "just the thing" to do; some of them even saying that they wished they were younger, so they could follow in the wake of the Star of Empire.

I thought the matter over for some time, and my brain was filled with visions of "booming" Western towns, where there was not a doctor within several miles, and where I would be received with open arms; a place where I would wear boots and spurs, an instrument case and a gun, and make my calls on horseback.

I had my ideal town pictured and was preparing to leave for the El Dorado, when I thought it would be well to first find where to have my baggage checked to.

My advisers said that I couldn't make a mistake. "Just go *West* to some *growing* place, and grow up with it. The further *West* the better.

But as I am naturally timid I procured a railroad map, and studied it carefully, but as that gave no information but that the X. Y. Z. R. R. ran solid vestibule coaches through the most fertile farming

country of the West, I consulted again. This one told me that Anaconda was the finest place on the face of the earth. The next said that Rattlesnake City was booming, and so on until I became discouraged.

Finally, a friendly dentist near here, to whom I had confided my trouble, wrote me that this place was growing rapidly, and there were but three doctors to compete with. I was desperate, and, though my friends shook their heads and said that I should go further West, I settled here (a manufacturing suburb of Chicago). Came out on borrowed capital, and have been able to "hold up my end."

A town of this kind, connected with a large city and its advantages, is far better for an ambitious man than the far Western towns I have seen on my trips.

I was through Iowa, Nebraska, South Dakota and Wyoming last fall, and made it a point to stop off at the principal booming places. Wherever I found four hundred inhabitants I found a graduate of medicine, who, if in a place depending on the farming country, has to wait until the crops are gathered to collect his bills. Some of these places would hold out big prospects at first, but the limit was soon reached.

I thought that perhaps the mining towns and camps would be lacking in M.D.s, but found them well supplied. Deadwood, twelve miles from the nearest railroad station, has six doctors to twenty-two hundred inhabitants; Lead City, five to twenty-one hundred; Rapid City, according to the hotel clerks about fifteen to a population of two thousand. Buffalo Gap and Hot Springs fairly swarm with them. At the latter place the doctors have taken possession of the rocks and sulphur springs, and are turning the wilderness into a sanitarium.

On the cattle ranges one will see the sign of Physician and Surgeon; the owner may have to ride twenty to thirty miles to see his patients, but he is always to be found. One graduate of a New York medical school I found herding cattle; another, of a Baltimore school, banker at a faro table, while still another, graduate from Kentucky, was driving a stage coach. Gone West they said, and found the field of practice crowded. But let me say here that an Eastern graduate seems to have the best show.

What I wish to show is, that the ambitious man had better put up with a living in a growing manufacturing town or the suburb of a large city for a year or so, and endeavor to push his way to the top and over his competitors than settle where there is no competition—if such a place can be found. It may be hard climbing, but the newcomer can at least get the devil's poor to treat.

HERBERT A. STARKEY, M.D.

CHICAGO, ILL.

FREE DISPENSARY FOR WOMEN.

ON Friday, January 2, at 1632 Cherry street, Dr. Massey and myself opened a Free Dispensary for the Treatment of the Diseases of Women by Electricity. Gynecological electro-therapeutics has assumed such an aggressive size that it seemed wise to us to have some place where the various methods advocated might be fully tested, and where physicians, and others interested in this branch, might have an opportunity to study these methods fully and without embarrassment.

The days for consultation are Monday, Wednesday, and Friday, at 3 P. M., and any physician or student, upon presentation of his card, will be given—and that most willingly—every possible opportunity to make diagnoses, to study the records, and to watch

the treatment. As a rule, in catarrhal inflammations of the appendages, Apostoli's method will be followed closely. This is:

1. The faradic current in the vagina.
2. The faradic current in the uterus.
3. The galvanic current in the vagina.
4. The galvanic current in the uterus.
5. Puncture.

In order to have a current of volume of sufficient strength to produce electrolytic effects, large cells will be used, because they give a larger chemical action—a current of volume rather than a current of tension, which latter, generated by small cells, acts more as a cautery. Currents of high intensity within the uterus, meaning by this currents that exceed 50 m., will also be used, because, as Apostoli demonstrated before the International Medical Congress at Berlin, such currents are the only ones of permanent service in dealing with dense masses that offer great resistance. These will be combined with puncture, in suitable cases. We shall also study the method of Damion, although I am exceedingly skeptical in regard to its utility, since I can see no scientific reason for its employment. A discussion of Damion's paper will be found in Apostoli's article referred to above, and which, translated by Dr. Laphorn Smith, of Montreal, appears in the *Annals of Gynecology* for December, 1890. We shall, to the extent of our ability, endeavor to be accurate and painstaking in diagnosis, and honest in detailing results. It is not always found necessary, in inflammations of other mucous tracts, to resort to severe surgical measures. Indeed, such interference is rarely demanded. Why should inflammation of the tube be regarded as an exception? Why should not the general pathology of mucoid inflammation apply equally as well to salpingitis as to inflammation of the intestinal tract, for instance? The surgeon opens an abscess, but he does not cut it out. Why not open a tubal abscess with the galvanic current and establish free drainage, and then follow with the application of the same current to the endometrium to restore it to its normal condition? I admit that puncture of a big pus-tube is an exceedingly delicate operation. So is an abdominal section. Puncture requires experience and dexterity on the part of the electrician. Laparotomy requires equal intelligence on the part of the surgeon. It has been somewhat autocratically stated that a woman with a pus-tube may not conceive. * Granted. But if you cure this state of things, she may become pregnant, as was the case of two women treated by Apostoli. On the other hand, if you cut out the tubes she is made barren. I strongly insist that electricity, in the hands of those competent to use it, does not complicate matters for the surgeon if operative measures should be resorted to later. In the hands of those who do not discriminate between the cases that are suitable and those in which electricity in any form is contra-indicated, it is a dangerous agent. The intelligent electrician, who is endeavoring to do an honest work in a manly way, should not be made a target of abuse because bad results have, of sheer necessity, fallen to the lot of those who have not been sufficiently well grounded in the principles of the science to justify the employment of such a powerful agent. There can be no real warfare between the surgeon and the electrician; nothing more than a mere wordy breeze, that will waft individual fame to remoter regions, because, if both be honest, the end they seek to reach is the same—the relief of suffering. It is a source of some anxiety as to the amount of material we may have at our clinic. The

onward march of the intrepid surgeon has reached Eighth, Ninth, and Tenth streets, and has even encroached upon Cherry—under the very drippings of our clinic. Will the time come when there shall be no more tubes for us to treat by electricity in Philadelphia? Heaven save the mark! What will then become of surgeons and electricians? What is the nature of this terrible epidemic which has smitten the families of this neighborhood? Shall we post a notice on our door: "Shut. No more tubes in this neighborhood?" Far pleasanter the time when the deft limner may capture the prize from the Academy of Fine Arts for his picture of "Peace"—the surgeon clasping the hand of the electrician, and both receiving the benediction of a woman who actually has two tubes and two ovaries.

HORATIO R. BIGELOW.

Book Notices.

SEXUAL IMPOTENCE IN THE MALE AND FEMALE. By WILLIAM A. HAMMOND, M.D. Geo. S. Davis, Detroit.

The various natural and acquired conditions which interfere with the act of conception, are discussed not only fully, but almost to the point where they cease to be of scientific interest and pander to morbid curiosity only. The book is worth skinning through, but will hardly become accepted as a standard scientific work, and when the reputation of the author is considered is likely to disappoint the reader.—S. W.

Pamphlets.

Transactions of the American Dermatological Association at its Fourteenth Annual Meeting, held September 2-4, 1890. New York, 1890.

Some considerations in regard to Acute Obstructive Diseases of the Lungs. By Andrew H. Smith, A.M., M.D. Reprinted from *The American Journal of the Medical Sciences*. New York, 1890. This is a paper read before the Section on Internal Medicine, of the Tenth International Medical Congress, recently assembled at Berlin.

Addresses delivered on the Occasion of the Commencement Exercises of Cooper Medical College, November 13, 1890. By Levi C. Lane, M.D., and by Edward R. Taylor. San Francisco.

Chattanooga as a Health Resort. By W. C. Townes, Ph.B., M.D. Reprinted from *The Journal of the American Medical Association*, August 16, 1890.

Removal of Tonsillar Hypertrophy by Electro-cautery Dissection. By Edwin Pynchon, M.D. Reprinted from *The Journal of the American Medical Association*, November 22, 1890.

Report of a Case of Ectopic Gestation. By Charles Meigs Wilson, M.D. Reprinted from *Annals of Gynecology and Pædiatry*, December, 1890.

Note on the Virile Reflex. By C. H. Hughes, M.D., St. Louis. Reprinted from *The Alienist and Neurologist*, January 1891.

The Psychopathic Sequences of Hereditary Entailment. By C. H. Hughes, M.D. Reprinted from *The Alienist and Neurologist*, October 1890.

A CONVENTION of American physicians interested in electro-therapeutics has been called to meet at the Academy of Medicine, No. 17 West Forty-third street, New York, on the Twenty-second of January, 1891, at 11 A.M., for the purpose of organizing an American Electro-therapeutic Association.

The Medical Digest.

TRANSLATIONS.

BY WILLIAM F. HUTCHINSON, M.D.

From the Chinese Medical Missionary Journal.

"The practice of medicine in China is in its decadence. And China, it has been said, is not behind the more civilized countries of Europe in showing disrespect to medicine, and curtailing or niggardly granting state honors and pay. The highest usual rank in medicine is a fifth button, and for extraordinary services rendered, or some wonderful cure, sometimes a third is bestowed. The Golden Age has passed away with its famous surgeons and physicians, Shan-nung and Wong, who sat exalted on thrones of high estate; Wa-t'o, who scraped a bone for the future god of war, and excised and replaced the eyeball of a king's son; and Pin-ts'euk, who, receiving his knowledge from a genii, and drinking dew for thirty days, became perfect in his art. The theory of the pulse and the practice of acupuncture and the moxa are credited to him. Soochow boasts a medical pantheon, or 'Temple of the Healing Kings.' Among the 2,000, more or less, in Canton, the names of Dr. Chin and Dr. Tai-wong, the 'rhubarb king,' appear, the latter's chief reliance being on the one drug, rhubarb. The few experienced practitioners are not enough to redeem the class, which for the most part is held in little esteem. Social standing counts highest in giving a reputation. As to patients, six classes, the doctors say, are incurable: The self-indulgent and the profligate, unreasonably violating propriety; the inconstant and the covetous; the unsuitably clothed and fed; the constitution that has its functions deranged; the emaciated, who are unable to take medicines, and the believer in enchantments, who has no faith in his physicians.

"Such is practice in China, yet its ignorant and unscientific practitioners are courted by foreigners at home and abroad."

CHINESE MEDICAL APHORISMS.

From the same journal.

"The prescription was good but the medicine was bad."

"The quack cures the head of a disease, the honest doctor the tail also."

"In a dangerous illness, call in three doctors."

"If the medicine does not create dizziness, you will not recover from your sickness."

"Quacks puncture and plaster, and use spurious drugs only."

"Out of ten men, eleven have the itch."

"The clever doctor cannot cure himself."

"If a gambler can reform, then there is medicine for leprosy."

"Still by a lotus fibre the big salt-junk is bound; and having reached their climax, diseases must turn round."

"When a disease returns no medicine can cure it."

"The son of the good sorcerer is generally killed by demons; the son of the great doctor often dies of disease."

"With a leper, you may sleep in the same bed, but don't stay opposite the door of one who has the itch."

"Diseases enter by the mouth, misfortunes issue from it."

"The ordinary physician kills men."

"Good medicine is bitter."

"There is a medicine for sickness, but none for fate."

"When Im Wong (the king of hell) has decreed that a man shall die at the third watch, no power can detain him until the fifth."

IMPORTANCE OF EXAMINATION OF THE TEETH IN EPILEPSY.—Dr. Bakowski mentions in the *Przegląd Lekarski* an instructive case of epilepsy occurring in a young Jewess. It had been going on for nine months, and latterly the fits had become more frequent, there being several every day. Bromide of potassium, quinine, arsenic, and asafoetida had been given without any effect. Finally, although there was no complaint of toothache, it was decided to examine the mouth. Two teeth were found to be carious—the first upper molar on the right and the first lower molar on the left side. These were extracted, with the result that the fits entirely ceased, and did not return, though the patient was under observation for six months subsequently. Upon being closely questioned the girl remembered that before the fits commenced she had had some unpleasant sensations in the affected teeth, but nothing that could be described as pain.—*Lancet*.

THE CORPUS LUTEUM.—1. The corpus luteum is no positive sign of pregnancy.

2. There is no difference between the so-called false and true corpus luteum, for they are found in the pregnant and non-pregnant (nullipara).

3. It is unjustifiable to elevate the corpus luteum to a medico-legal aspect in distinguishing pregnancy or non-pregnancy.

4. The yellow body arises before the rupture of the Graafian follicle. This is not universal.

5. The yellow body will occasionally acquire its distinct, so-called, (cerebral) convolutions before the rupture of the Graafian follicle.

6. That we do not yet possess means to determine the duration of life and rate of growth of a Graafian follicle.

7. That the size and age of a corpus luteum are entirely uncertain quantities, as the size of a corpus luteum may be about the same at four months after conception that it is sixteen months after conception, or it may be a mere cicatrix two months after delivery, and even before delivery.

—Robinson, *N. A. Pract.*

DIPHTHERIA AND SUBSOIL WATER.—Much has already been determined as to the relation subsisting between enteric fever and subsoil water, thanks to the labor of Pettenkoffer and others. It has been reserved for Mr. Adams, Health Officer of Maidstone, to enunciate a theory as to a certain relation which he has found to subsist between the prevalence of diphtheria and the fluctuations of the subsoil water. Steady rise and fall of this subsoil water seemed to have no effect in inducing favorable or disposing diphtheria conditions; but when irregularities in this rise and fall and oscillations occurred, then these conditions appeared, and diphtheria with them. One favorable result, too, of these oscillatory risings and fallings was the expulsion of morbid matter from the soil into the air, and consequent infection of persons and dwellings. Soil polluted by decaying albuminous matter, and rendered chronically damp by these repeated wettings of the subsoil water, would thus afford a most favorable breeding ground for the particular poison of diphtheria. Such is Mr. Adams'

theory, which is supported by a strong body of evidence, including maps and diagrams galore, and is well worthy of careful attention by all public health scientists.—*Med. Press*.

CHANCER ON FINGER.—At the Hunterian Society Mr. G. J. B. Stevens read notes of a case of syphilitic sore on the middle finger, on the ulnar side of the last phalanx, in a married man, aged about fifty. It was an oval indolent sore, with a red raised surface, no characteristic hardness, but with a tendency to spread, and painful to the touch. Its syphilitic nature was not suspected until it had existed nearly five weeks, when mercury was commenced. A week later the sore was well scraped, under an anæsthetic, and acid nitrate of mercury solution applied. About this time secondary eruption and sore throat appeared. The sore steadily healed, but the disease was communicated to a second person. The mode of infection was unrevealed.

Mr. C. J. Symonds had seen a good many cases, including no fewer than five of medical men, with Hunterian chancre on the finger, acquired in obstetric practice. In this case, which he saw with Mr. Stevens, the scraping and caustic used saved the bone and joint. In another instance, where the joint was much endangered, amputation was performed, but not by him, and he thought this measure scarcely ever needful. Lately he had seen a man with a chronic sore on the second phalanx, raised, gray, something like a chancre, or like a patch of necrogenic lupus. The man had been working among cows; under lead lotion the sore healed rapidly.

Mr. J. Hutchinson, Jr., had observed on the knee of a dairyman a few sores like necrogenic lupus, persisting for months. From horses also very obstinate sores might be got.—*Brit. Med. Jour.*

PROPOSED CHANGES IN THE MISSOURI PHARMACY LAW.—There is at present an agitation on foot among the druggists of this city to secure a change in the State pharmacy law, which, it must be confessed, is susceptible of great improvement. The proposed changes consist in the examination of all applicants for license by the State Examining Board, whether the applicants are physicians or not; the collection of an annual registration tax of one dollar, to provide working funds for the State Board; and the adoption of a clause providing for the enforcement of penalties when violations of the law occur. For want of this latter requisite the law is said to be practically inoperative. The changes are said to be reasonable, and to be receiving the support of many prominent physicians of this city. We can scarcely believe that the latter statement is a fair presentation of the case, for there are many equally prominent physicians of the city who are violently opposed to the changes. In addition to this we must consider the vast number of country practitioners who practise medicine and pharmacy at the same time; their rights must be respected, and they should have a chance to be heard on the subject. To even the most casual observers it is clearly apparent that the highly-injured tone assumed is wholly unwarranted and to a degree nonsensical. If the evil results of allowing physicians in general to practice pharmacy be so great, how shall we characterize the invasion of the physician's sphere by the festive druggist and his cub clerk? This is an evil, and a most glaring one, on which pages could be written, but we simply refer to it here, and shall defer its consideration to some future and more fitting occasion.—*Weekly Med. Review*.

McMURRAY recommends a trial of hoang-nan in pruritus ani.

GUAIACUM, in the opinion of Murrell, manifests its main action as a laxative or a purgative. He recommends a confection, containing ten grains of guaiac resin to a drachm of honey. This proved very popular with patients. He used it also in chronic rheumatism, sciatica, tonsillitis, dysmenorrhœa and allied affections.—*Med. Bulletin.*

FORMULA FOR STYRONE:—

Styrone	3j.
Glycerine.....	3j.
Distilled water.....	3j.

Used as an application to unhealthy or cancerous ulcers.—*Beach.*

THE following is recommended as a mouth-wash :

R.—Sodii boratis.....	3ij.
Tr. krameriaë,	
Glycerini.....	āā f3iv.
Aquæ cinnamomi.....	q. s. ad. f3iv.
M.—Sig. Use three or four times daily as directed.	

—*Aulde.*

FOR WHOOPING-COUGH:—

R.—Terpine.....	gr. xv.
Antipyrin.....	gr. xv.
Syrup of orange peel.....	3j 3vj.
Mucilage.....	3ij.
M.—S. Dose, f3 to f3ij several times a day for a child under four years of age.	

—*Talaman.*

PROCTITIS, piles and fissures of the anus, presenting symptoms such as pains, tenacious discharge of mucus, and the most embarrassing of all symptoms, itching, which is never absent when the person is in company with an individual of the opposite sex, or when the victim is engaged in cogitating about a place of future happiness, are promptly relieved by the injection of listerine and laudanum.

—*Med. Compend.*

"CANCER MORTALITY AMONGST JEWS."—Allow me to reply to the invitation given in your issue of November 8 last, regarding the occurrence of cancer amongst the Jewish population, by saying that while in practice in Bombay, in 1886, a Jewess from Bagdad, with a European complexion and of European habits of life, and aged thirty-seven years, was under my care for cancer of the breast. The tumor, which was discovered and diagnosed early, increased rapidly, necessitating removal as affording the only chance of recovery. The operation was carefully performed; but the case terminated fatally in a month. In this patient there was no admixture of foreign blood, and this is the point of my letter.

—Roland Blaney, M.B., C.M., in *The Lancet.*

CHRYSAROBIN IN HEMORRHOIDS.—A Paris correspondent of the *Pharmaceutical Record*, April 7, 1890, states that extraordinary success has been reported with chrysarobin in the treatment of hemorrhoids. For the external variety he prescribes the following ointment, to be applied several times daily after a washing in a 1 to 50 solution of phenic acid, or a 1 to 100 solution of creolin: Chrysarobin, 80 ctgr.; iodoform, 30 ctgr.; ext. belladonna, 60 ctgr.; vaseline, 25 gm.; for external use. For internal use, the formula

is as follows: Chrysarobin, 8 ctgr.; iodoform, 2 ctgr.; ext. belladonna, 1 ctgr.; cacao butter, 2 gm.; make one suppository. In three or four days pain and hemorrhage are said to disappear, and it rarely happens that the most obstinate cases are not cured within two or three months.—*College and Clinical Record.*

GLYCOZONE.—In treating a child with scarlatina it was noticed that the mouth was assuming a threatening condition; ulcers beginning to form on the tongue and the gums. She was given a glass of water with an ounce of Marchand's glycozone, and directed to take a swallow occasionally. The ulcers healed up, and the mouth was well in two days.

The same solution was given two other children in the same family as a preventive, and they escaped the disease.

A boy fourteen years of age was seized with mumps. The solution of glycozone was employed as above, and the case recovered in an unusually short time.

In treating a girl with quinsy, a number of white patches appeared on the tonsils. Glycozone, one ounce to six of water, was given at short intervals. The next morning the spots had disappeared.

—*Waugh.*

SULFONAL.—Much has been written about this medicine, but in my opinion there is still much to be learned concerning its utility. I have found it useful in many cases among the insane, and yet comparatively inert among others. The medicine in question has been used in this asylum by me for insomnia, restlessness and excitability, and even for violent patients; my success has been confined to those suffering with sleeplessness, as the cases of violence rarely succumb to anything short of either physical or chemical restraint. The cases were usually insane, although I have used it very much among the sane during the past two years, and in all, amounting to over one hundred cases, and with 80 per cent. of successes. The average time after each dose till sleep came on, was three hours; the average dose was twelve grains, sometimes only five or ten, to adults, and sometimes fifteen to twenty-five grains were given; the usual time for administering, five o'clock P.M., thus causing sleep at eight P.M. The average number of hours of sleep was seven. The sleep was more profound among children than grown persons. No vomiting has even been observed by me as a result of the sulfonal. One case will suffice to show the failures. Henry D., aged thirty-nine, admitted in the insane asylum of Arizona, July 9, 1890, nationality, German; occupation, miner; suffering with *melancholia agitata*, or melancholia with frenzy; has been extremely restless, and insomniac and violent, at times, and destructive, and often resisting the medicine, thinking it poison and a "plot to kill him." Dose given was at first twenty grains, no sleep to speak of followed; next dose tried was twelve grains and no better effect, and after trying persistently for some time, have abandoned it and determined to try other remedies. In no case has it caused any disturbance whatever of the gastro intestinal tract, and in no case did it cause a desire to continue the medicine. My experience would lead me to believe that it should be given in the afternoon, or later if sleep was desired later, and twelve or fifteen grains at a dose is quite sufficient. It is certainly a good hypnotic, and should be found on the shelf at every alienist and general practitioner, if he desires any success in the treatment of nervous affections.

—Toney, *St. Louis Med. and Surg. Jour.*

Anatomical Changes in the Varieties of Hepatic Cirrhosis.

VARIETIES	SIZE	COLOR	SURFACE	CAPSULE	CONSISTENCE	BILE PASSAGES	POSITION OF NEW GROWTHS	NEWLY-FORMED BILIARY CANALICULI
Alcoholic	Usually small	Pale olive	Granular	Thick	Tough	Nearly empty	Round groups of acini	Present
Cardiac or cyanotic	Usually large	Dark	Smooth	"	"	"	In centers of acini	Absent
Biliary	"	Olive or pale	"	Slightly thick	"	Dilated and full of bile	Around single acini	Abundant
Diffuse syphilitic	Large	Brown	"	Opaque	"	Normal or empty	Diffused	A few only
Gummatous	Irregular	Pale	Irregular	Thick and opaque in places	Cartilaginous in places	Normal	Irregular	Absent
Tuberculous	Large	Pale or normal	Smooth	Normal	Normal	"	Around single acini	Very abundant
Malarial	"	Dark pigment-ed	"	"	Tough	"	Around single acini	Absent
Scarlatinal	Normal	Normal	"	"	Normal	"	Around single acini	"
Rachitic	Large	Pale	"	"	Tough	"	Around single acini	Present
Diabetic	"	Dark and pigmented or pale	Granular or smooth	Thick	"	"	Generally in centers of acini	Absent

Clinical Features of the Varieties of Hepatic Cirrhosis.

VARIETIES	AGE	SEX	HISTORY	ASCITES	JAUNDICE	HÆMATEMESIS	SIZE OF LIVER
Alcoholic	Adult	Usually male	Abuse of alcohol	Present in two-thirds	Absent until later stages A subicteric tinge then only	May occur	Usually small
Cardiac or cyanotic	Any age	Either	Chronic heart disease	Not uncommon	Occasional late	Absent	Enlarged
Biliary	Any age	"	Early jaundice	Absent	Present and persistent	"	"
Diffuse syphilitic	Childhood	"	Hereditary syphilis	"	Absent	"	"
Gummatous	Adult	"	Acquired syphilis	May occur	Occasional	"	Irregular
Tuberculous	Any age	"	Tuberculous disease elsewhere	Absent	Absent	"	Enlarged
Malarial	"	"	Prolonged malarial infection	"	Frequently present	"	"
Scarlatinal	Usually in childhood	"	Scarlatina	"	Absent	"	Normal
Rachitic	Childhood	"	Rickets and chronic gastro-intestinal catarrh	"	"	"	Enlarged
Diabetic	Adult	Usually male	Diabetes	"	Absent, but skin may be bronzed	"	Generally enlarged

—Saundby, *Brit. Med. Jour.*

DRAINAGE OF WOUNDS.—If aseptic conditions are maintained, then we may safely conclude that the drainage of the wound will not be necessary, and if unnecessary, certainly undesirable. At the best, the drainage tube is a foreign body and its presence in the wound prevents primary union of that portion of the tissues which encloses it. It keeps the wound, to a certain extent, an open one, and, as such, makes secondary infection so probable that the most careful dressings are advised to absorb and disinfect secretions and prevent atmospheric contamination. In an aseptic wound, after the removal of the tube, the final closure of the tract is comparatively slow, and by granulation. These are well recognized objections, and efforts have been made to overcome them by many ingenious devices. The bone drainage tubes are of service to this end, since after serving the purpose of a drain for a time, they soften and, as broken-down material, escape into the dressings. A modification of these tubes has been made by Dr. Weeks, of Portland, Me., possessing certain advantages over bone, in the use of the arteries from animals which have been aseptically prepared. They serve an excellent purpose when such drains are required.

If drainage is to be discontinued in aseptic wounds, it must be accepted that all possible care is to be exercised in having *as little devitalized tissue as possible*, and in *evenly coapting the divided parts*. The wound should be clean and dry. The different layers of the tissues should be joined with as little injury to them as possible, and the external wound protected from infection. This I have found best carried into effect by irrigation, a minimum of sponging, and joining the tissues by light running buried animal sutures, preferably fine tendon. The skin is evenly

coapted by a similar suture taken from within outward through the deeper layer only. Then the wound is sealed with a germ proof layer of iodoform collodion, reinforced by a few fibres of cotton. Such wounds go on rapidly to repair without œdema of the tissues, pain, or tenderness. The resulting cicatrix is minimized, of much importance in facial wounds, and often is scarcely, after some weeks, to be recognized.

Are all aseptic wounds to be thus treated? I unhesitatingly say, yes, even to the major amputations, and in a large proportion of laparotomies. Can such large wounds be made and maintained aseptic? Without a doubt, as experience abundantly proves; however, by the most scrupulous of aseptic measures. When in doubt, it may be better to drain large wounds, but I cannot myself question that he who uses the drainage tube in aseptic wounds, unconsciously, however it may be, thereby, in a measure at least, confesses his lack of confidence in his belief and ability to maintain an aseptic condition of wounds.

The wound which is cleansed with difficulty from blood, or where there may be possibly unsecured bleeding points, may become an exception to the above rule, even if aseptic, but here the drainage-tube, when used, is for quite another purpose; in order to point out secondary hemorrhage, as after severe abdominal operations with many injured vessels. I cannot myself, however, doubt but that it is far better to use especial precautions to control hemorrhage before closure of the wound, rather than rely upon such an imperfect indicator of subsequent complication. As a matter of fact, I find, in my last forty abdominal sections, I have not once used drainage, and have noted no reason to regret not doing it.

—Marcy, *Annals of Surgery.*

ALPHA-NAPHTHOL possesses extraordinary well pronounced antiseptic properties. According to the researches of Maximovitch (¹⁷⁵), alpha-naphthol in the proportion of 1 : 10,000 of culture-gelatine, prevents the formation of the most various pathogenic microbes; even in the proportion of 0.6 or 0.8 : 10,000, it retards the development of microbes by three to eight days. Similar antiseptic effects were produced by beta-naphthol, but twice as much had to be used to produce the same results. Neither of the two substances can really be termed "poisonous." Bouchard fixes the toxic dose of beta-naphthol for a person weighing 65 kilogrammes (143 pounds Av.), at 250 grammes (8¾ ounces Av.); whereas Maximovitch considers 585 grammes (20⅝ ounces Av.) of alpha-naphthol to be needful for the same purpose.

Considering, then, the slighter action of alpha-naphthol on the animal system, and its more powerful antiseptic properties, it would seem to deserve the preference over beta-naphthol as a disinfectant in or about the human body.—*Merck's Bulletin*.

MICROBIC ANTAGONISM—In a paper upon this subject in the *Provincial Medical Journal*, Bewley sums up as follows:

1. The bacteria which cause some diseases may perish in the body without the organism taking any active part in their destruction.
2. In many diseases the cells of the body must take an active part against the invading germs.
3. In some cases they seem to do so by enclosing the bacteria in their protoplasm, or devouring them, killing and digesting them. The most conclusive case of this is the daphnia disease, in which the phagocytes seem to be the chief, if not the only agency that destroys the fungus.
4. In larger and more complete animals the cells may overcome bacteria by devouring them; or they may form some chemical substance which poisons the bacteria, or they may destroy them by means of some vital influence or power.
5. The theory of phagocytosis may have a very widely extended scope; it has not been proved that it has not; on the other hand it has not been fully proved that it has.

These investigations and the conclusions to be drawn from them we must therefore leave in an undecided state. But the intense interest of the subject and its extreme importance as allowing us perhaps some glimpses into the real nature of some of those functions of our bodies which enable them to resist disease and to avoid death, must be my excuse for choosing this subject for my paper to-night.

PILOCARPINE IN AURAL DISEASES.—1. The subcutaneous injections of pilocarpine are particularly indicated in recent affections of the labyrinth, be they of a syphilitic nature or not. In protracted diseases of the labyrinth these injections, if tried, must be abandoned if no improvement results after from ten to fifteen injections.

2. The subcutaneous injections of pilocarpine are but rarely employed in otitis media acuta, where the cavum tympani contains hardened exudative products, which resist reabsorption; moreover, in panotitis gemina diphtheritica, or in other diseases produced by infection.

3. The subcutaneous injections of pilocarpine are decidedly contra-indicated in cases of dry sclerotic catarrhs of the middle-ear.

4. Injections of several drops of a 2 per cent. solution of muriated pilocarpine through the catheter into

the tympanic cavity are beneficial in some cases of catarrhs connected with swelling and a slight secretion of the mucous membrane of the middle-ear, continued from one to three weeks alternately, with inflations of air by Politzer's procedure. The purpose of the present communication is to reduce to a just measure the therapeutic value of the subcutaneous injection of muriated pilocarpine in diseases of the ear, and to draw attention to the frequent abuse which has been made of this remedy for some time past.—*Politzer, The Lancet*.

A CASE OF HERNIA OF PREGNANT UTERUS.—The article upon "Hernia Uteri Gravidæ," in the October number, and the evidence it presents of the extreme rarity of this condition, induces me to report the following case:

Mrs. E. was operated upon for ovarian tumor by a well-known ovariologist, in July, 1888, being at that time forty years of age, and having given birth to five living children. I was called to see her in September, 1889, for protrusion of gravid uterus through the scar left by the operation. The patient was aware of her condition, and was alarmed at the purple hue of the integument over the tumor. Bandages of different kinds were resorted to in order to keep the uterus back, but they proved useless, and before the full period was reached it was entirely outside the abdomen, and, if unsupported, would doubtless have fallen forward and taken the position represented in the cuts of the article referred to.

She was taken in labor January 1, 1890. I had made up my mind that in case of any delay of the child to enter the pelvic canal I would promptly bring down the feet. Labor progressed very well, however, until the head occupied the excavation of the pelvis. Here it remained stationary for a time, and I did not wait long, but applied the forceps and delivered her easily of a living male child.

With my hand on the abdomen, separated from the uterus only by the skin, I got an idea of the force exerted by this organ during contraction quite as impressive as that from the hand inside during version.

—*Reeves, Annals of Gyn. and Pæd.*

ANTAGONISM BETWEEN BACILLI OF ANTHRAX AND "BLUE PUS."—Blagovestchensky (*Annales de l'Institut Pasteur*) gives an account of some experiments of which the following are the most important results. Simultaneous inoculations into the anterior chamber of the eye of the rabbit with the bacillus pyocyaneus and anthrax bacillus are accompanied by a destruction of the latter, the animal not succumbing to anthrax. Such inoculation, however, does not, except in very rare cases, render the animal immune from a later attack of anthrax. If the bacillus pyocyaneus and the anthrax bacillus are not inoculated at the same point, the effect of the pyocyaneus bacillus is less marked, and more of the animals die from anthrax. When anthrax spores are introduced along with the blue pus bacillus, their development is interfered with. As the result of many experiments the author concludes that the sterilized products of the blue pus bacillus, can, as Woodhead and Cartwright Wood pointed out, influence to a certain degree the development of the anthrax bacilli, but that it requires a considerable quantity to effect this result, as where the inoculations were made into the eye simply, the quantity of blue pus products was small, and many of the animals succumbed to anthrax. He also shows that even outside the animal the blue pus bacilli exercise a very marked inhibitory action on the develop-

ment of anthrax bacilli, and he explains the fact that his experiments do not agree with Freudenreich's by the assumption that Freudenreich was working with cultivations of too great an age, as exceedingly young cultivations and very old ones (more than five weeks) appear to have little retarding effect on the development of spores or on the growth of bacilli. From other experiments that he made in moist chambers he is convinced that the substance that inhibits the action of the bacillus is a volatile substance that readily escapes on exposure to the air. He gives full description of sixty-seven most careful experiments, all of which were made under Metchnikoff's guidance and advice.—*Brit. Med. Journal*.

KOCH'S LYMPH IN ITS ACTION ON BACILLI.—Koch's remedy is said always to cause a feverish reaction accompanied with rigors, when inoculated in a patient, the subject of tuberculosis; and this symptom is absent when the case is one of syphilis, cancer, or any other disease. The most marked success, so far, seems to have been obtained in cases of lupus; and here the parts affected showed a reaction to the remedy by becoming red and swollen. Whatever may be the future of Koch's cure, one thing seems to be certain, and that is it will not help cases of pulmonary phthisis. This will necessitate our making a careful diagnosis in every case, as fortunately we are able to cure pulmonary phthisis in the early stage by ordinary remedies, and, as Dr. McCall Anderson has shown, even cases of galloping consumption, provided they are not tubercular.

One of Koch's statements is difficult to understand; it is, that his lymph destroys the tubercular tissue in which the tubercle bacilli are situated. Now, given a lung studded with tubercles, all of which are suddenly killed by the action of the curative lymph, it does not seem clear what is to become of the necrosed material. We know that a syphilitic gumma, after it has been destroyed by the action of a drug, will still remain as a foreign body in the part, and set up chronic inflammatory action; in this manner forming a fibrous capsule, and isolating itself from the surrounding healthy tissue. The same thing may be done by a tubercle or a nematode worm. The center is a mass of caseous material having no structure to show what it originally consisted of; it becomes, however, completely isolated by a fibrous capsule formed by the chronic irritation of its presence. The central portion may undergo calcification.

If Koch's lymph kills the tubercles in a diseased lung, what change will take place in them? If they are to be softened and absorbed, the place they occupied will be left vacant, and the lungs full of holes, as they were formed at the expense of lung tissue. If, on the other hand, they are simply killed, and dry up like a dead gumma, the lung will in time be filled with numbers of small fibro-cystic masses. We need more light upon this subject; but before all things, it seems to me, we ought to have a clear idea of the actual lesion in the lungs to enable us to appreciate the action of the cure.

—Gibbes, *Boston Med. and Surg. Jour.*

ON CONTINUOUS HEADACHE.—There are certainly various causes of morning headache. Among these are: Disturbed and dreaming sleep, a large late (undigested) meal or other error of diet on the previous day, and poisoning by inhalation of bad air (from exhalations in poorly-ventilated chambers, from leaky gas-pipes, sewer-gas in rooms, etc.) So-called periodic headaches also not infrequently begin on waking.

But in these cases the trouble does not recur daily, nor in other ways conform to this type, though some similarity in pathology is possible. On the other hand, of course a person subject to the headache of tire may bring it on at any time in the day, only the most marked characteristic is the morning recurrence.

The drinker's matutinal sufferings—*Katzenjammer*, hot coppers, swelled head—may pass for an acute and artificially-produced example of this trouble. The alcohol first stimulates the circulation, and, perhaps more directly, the nerve structures. Often there is some loss of sleep. Then comes the reaction, increased by the depression that sleep brings, and by nausea of gastric origin. His morning "eye-opener" refreshes his feelings by stimulating anew.

The characteristics and co-symptoms of this type of headache, when uncomplicated, may be summed up as follows:

1. A history of tire and exhaustion from prolonged and overwork; often, also, in part, from short hours of sleep and anæmia, of whatever origin.
2. The common occurrence and greatest severity of the trouble on waking.
3. Its improvement on gentle exercise or on taking a hot or stimulating drink; sometimes growing worse again later in the day.
4. Its frequent, even daily, recurrence.
5. Its dull, non-throbbing, non-neuralgic character.
6. Any part of the head may be involved, though oftener the frontal.
7. The person sleeps with the head low.
8. Sleep comes easily, is deep, and is rarely disturbed by dreams.

As to the other symptoms, dizziness on suddenly rising, nausea, etc., may or may not be troublesome. Though only occasionally are there points about the head tender to pressure, yet, as in many chronic headaches, there may be a number of fixed or constant points about the cranium that are exquisitely sensitive to even a very gentle faradic current.

Treatment must correspond to the cause. Usually this can be remedied, and then the prospect of relief is excellent. Recreation—rather than full rest—is often more important than drugs. In younger people, feeding, iron, and general tonics do good.

—Browning, *Brooklyn Med. Jour.*

COXITIS.—Coxitis is eminently a disease of childhood. Adult life is almost exempt from its visitation, except as one of the transitory symptoms of rheumatic fever.

But even in childhood coxitis is limited to a certain age. Thus it is rarely ever met with in the *early period of infancy*, while the child is still under the supervision and special care of mother or nurse. We meet with it in the third year and it becomes more frequent with advancing age. In the seventh or eighth year *new* cases of coxitis diminish and disappear almost completely at puberty.

You can readily understand that the *frequency* of coxitis raises with the *daring* and *self-reliance* of childhood and *diminishes* with the *knowledge of danger* and maturing discretion.

Other facts may be adduced in proving the *prevalence* of traumatic causation of coxitis. Thus, for instance, the disease is *more numerous* in large cities with dense population than in the open country; *more frequent* north than south of Mason and Dixon's line *more* in crowded tenement houses than in the mansions of the wealthy *more* on granite paved streets and hard sidewalks than natural roads; *more*

among florid, excitable and contentious children and boys than passive and phlegmatic ones and girls.

All these differences have vainly been tried to trace to the prevalence of constitutional vitiation. In bygone times, scrophulosis was pointed at, as the scape goat; since the discovery of the bacillus, of course, every coxitis is of tubercular origin.

The tubercular bacillus is omnipresent and omnipotent in coxitis—traumatism is nothing, or a mere bagatelle, at best serving as an invitation to the bacillus to avail itself of the locus minoris resistentiae for comfortable settlements.

Admitting that but a few mishaps, during childhood, actually disturb the anatomical integrity, yet if fractures, wounds, lacerations, contusions, etc., may be and are actually engendered during childhood, demanding recognition, it is certainly surprising that joints, and especially the hip-joint, should be exempt from the injurious effects of traumatism!

Such an inexplicable aetiological theory would at once be rejected as erroneous in point of fact and sound logic, if the insidious way in which joint diseases generally commence, develop and grow, did not lend its pretext to such an untenable doctrine.

The primary history of all such cases is almost uniform.

A child falls, rarely remembering when, where and how. When the pain has passed, the accident is forgotten, and the play resumed. After days, weeks and months, as the case may be, during which time the child has followed its ordinary enjoyment in running, climbing, and jumping or velocipeding, etc., towards night it shows a trifling impediment in walking; it prefers rest to play and accepts a support. Next morning is as well as ever before and no apprehension is felt on the part of the parents. Succeeding days may show some aggravation. The limping is at times conspicuous, and certain movements of the articulation painful.—Bauer, *St. Louis Clinic*.

KOCH'S LYMPH AND JENNER'S.—The public prints, it will be noticed, have assumed an analogy between the inoculation treatment of Kock and vaccination for small-pox, whereas there is no real resemblance between the two procedures, nor between the two affections with which they are connected. It is only necessary to point out a few of the more striking points of difference, in order to show how unlike they are:

Vaccine lymph is a pathological product, taken from a vesicle in a living animal.

It contains bacteria, and is the infectious material from vaccinia, which is a bovine form of variola.

One inoculation sufficient.

Destroys the susceptibility to disease.

Is employed in health to prevent the onset of disease.

Can be used by any one, and when pure is harmless.

Is applied to an abrasion.

Its manner of preparation and preservation are known, and are under supervision and control.

In conclusion, it may be stated that a radical difference between the two diseases is found in the fact that small-pox is self-protective, and, as a rule, an individual loses his susceptibility by surviving the

Koch's lymph is a chemical substance, probably dissolved in the serum of a guinea-pig.

It is claimed to be non-infectious, and is a laboratory product.

Several inoculations are required.

Does not prevent re-infection.

Is employed in disease to restore health.

Requires skilled operators, and produces toxic symptoms.

Must be injected hypodermically.

For the present, at least, requires the use of a secret, proprietary, and uncontrolled remedy.

first attack; on the contrary, an infection by tubercular material predisposes to future attacks, provided the conditions favorable for the outbreak of the disease are present. Notwithstanding the ingenious argument of the elder Flint, that phthisis is a self-limited disease, the clinical facts are against it, as recently demonstrated in the able paper read by Dr. William Porter, of St. Louis, before the Mississippi Valley Medical Association, in which this view was completely controverted. For the consumptive, there is no such royal road to health as the community anticipates from Koch's investigations, which recently have led to a brief revival of the cruel and delusive hopes that were warmed into life under the Bergeon craze. The effect upon the profession will probably be to lead them to look with more favor on the method which Bartholow endeavored to popularize, of treating phthisical patients systematically by hypodermic injection, with remedies of established reputation for favorably modifying the symptoms and delaying the progress of pulmonary phthisis.

—Woodbury, *Med. Bulletin*.

GOOD POINTS FROM "THE MEDICAL WORLD."

—For acute pharyngitis Payne recommends gargling every half hour with an ounce each of honey and vinegar, and a teaspoonful of salt. It does not follow that these are useless because they do not come from Merck.

Lance reports very unpleasant symptoms resulting from the use of sulfonal nightly for a year. Profound nervous prostration ensued, with paresthesiæ and acute pain in the bowels and in the joints. The mucous membranes exfoliated. The symptoms were somewhat relieved after taking her usual dose of sulfonal. From one hundred and twenty-five pounds her weight has fallen to sixty pounds.

Carn records a case of poisoning from coal oil. The amount swallowed was not known. The child ejected much mucus from her mouth. Convulsions supervened in an hour: the skin was pale, and pulse weak. No purging or vomiting. When the collapse passed off, the temperature rose to 103°, and then sank, reaching normal in twenty-four hours. Recovery ensued. The treatment consisted in the administration of soap and water, milk, castor oil and bromide.

Naso-pharyngeal catarrh is thus treated by Willis: First cleanse parts with peroxide of hydrogen, diluted sufficiently, and then apply the following with spray:

R.—Sodii boro-benzöat,
Fld. ext. hydrastis..... āā ʒj.
Glycerini..... ʒj.
Acidi carbolici..... ℥xx.
Aquæ camph..... ʒvj.
Aquæ ʒvj.

M.—Sig. Use three times per day.

O'Neal has good success in treating granulated lids, with jequirity, followed by zinc sulphate.

Roush says a pneumonia can be aborted by sinapisms, followed by cataplasms.

Eczema of legs.—Garver recommends one-half pound sulphur and one-quarter pound lime, in half a gallon of water, boiled over a water-bath for four hours. The supernatant liquid is to be mixed with one-fourth its bulk of glycerine, and applied to the skin after an alkaline bath, two or three times a week.

Bed sores are treated by Shute by bathing with quinine, gr. xxx, to alcohol ʒviij. The patient must lie on a good, soft, woolen blanket.

Lester reports a dead child delivered with the umbilical cord seven times around its neck.

Knapp says that after being compelled to use the catheter for years, for enlarged prostate, and failing with many remedies, he has recovered, under the use of the saw palmetto, almost completely. He is seventy-seven years old.

Rietze recommends the saw palmetto for sexual debility.

Emerson, when the perineum is threatened with rupture, applies to the vulva napkins wet with very hot water, changed frequently. The tense perineum soon softens and great relief is experienced.

Two Brussels surgeons, MM. A. Crickx and A. Lebrun, have recently employed massage in a number of cases of fracture, especially of the fibula, radius, and clavicle, with marked success.

Kums, of Antwerp, who had previously recommended hypodermic injections of sulphuric ether in neuralgias of various kinds, now reports that he has obtained excellent results from similar treatment in hepatic colic. He employs two injections per diem for a couple of days. Pure sulphuric ether may be used, but Kums prefers spiritus ætheris. He injects it into the region of the liver.

M. Combemale, of Lille, does not agree with recent criticisms on the employment of olive oil in hepatic colic, due to biliary lithiasis. He gives eight or ten ounces of the oil in divided doses during the day, and finds it diminishes the pain and brings away large stools containing friable masses of cholesterin.

The treatment adopted by Dr. Coppez, of Brussels, in acute retino-choroiditis, and in the chronic form where it is necessary to act with promptitude, is to keep the patient in a dark room, and to practice intra-muscular injection of bichloride of mercury together with those of hydrochlorate of pilocarpine, iodide potassium being given internally.

Nannotti has injected emulsions of oil of cloves into a number of tubercular abscesses, and other local tubercular affections, such as those of the joints and glands, with a certain amount of success, the best results being obtained in the case of abscesses, ulcerations, and fistula. In these he finds the oil of cloves superior to the iodoform which he had previously employed. The strength of the emulsion used was ten per cent., and the quantity varied according to the size of the abscess, being sometimes almost an ounce.

Manassein, of St. Petersburg, says peroxide of hydrogen is an excellent antiseptic and disinfectant agent, which deserves the most extensive use. It proves especially valuable in cases of herpes progeneralis, soft chancres and gonorrhœa. The latter may be cured by injections of peroxide in eight to twenty-one days; soft chancres in from five to fourteen, by using the drug in the form of lotions. It does not soil the linen or give rise to any local pain or irritation or any unpleasant general effects. It affords a most reliable means for preventing any venereal infection by using it as an injection.

Compound chrysarobin ointment, says the *Brit. Jour. of Dermat.* used chiefly in psoriasis, is, according to Unna's formula, composed of chrysarobin 5 parts, salicylic acid 2 parts, ichthyol 5 parts and vaseline 88 parts. Aristol ointment is recommended by Eichhoff: aristol 3 to 10 parts, vaseline 30 parts. It is said to be not less efficacious than chrysarobin in psoriasis, and to have the advantage over the latter that it does not stain the skin or irritate.

—Hosp. Gaz.

THERAPEUTICS OF ACETANILID.—The decided influence of this drug upon the nervous system suggests the indications for its use aside from its antipyretic properties, and accordingly we find it of special value in calming excitement, such as that which occurs in tabes and dementia paralytica, and in other *spasmodic affections*, including epilepsy. As a pain-relieving agent also, in cases accompanied by *structural changes* in the nerve fibres, like optic neuroses, tic and sciatica, and those permanent and fugitive pains of rheumatic origin; but the relief in these latter, although prompt, is only transient. In epilepsy, comparatively small doses will often accomplish results that are really surprising after the failure of bromides, but it sometimes signally fails, and leads to the suggestion that probably antipyrin includes a wider range of such cases than acetanilid. As a *hypnotic* it is exceedingly uncertain, except that favorable reports have been made in the case of alcoholism.

In this connection should be mentioned a "therapeutic law," formulated by MM. Dujardin-Beaumetz and Bardet, regarding the aromatic carbon compounds which are at the same time antiseptic, antithermic and analgesic, but their propositions fall short of the demands of an exact science.

Love, of St. Louis, has found it of great service for the relief of febrile spasmodic and painful disturbances of children, and has a record of six hundred cases showing superior results to the treatment he has heretofore adopted. His formula is as follows:

R.—Acetanilid	gr. xxx.
Alcoholis	f 3 iij.
Glycerini	f 3 ij.
Aquæ Cinnamom	f 3 ij.
Syr. Tolutani	f 3 j.

M.—S. Give one to three teaspoonfuls every two or three hours, as may be necessary.

In the treatment of *typhoid fever* as it occurs in this section of the country, acetanilid is a remedy of doubtful utility, and especially is this remark applicable to persons previously engaged in sedentary employment, with a poorly developed muscular system, and those of a full habit. My experience and observation warrants the assertion that these cases fare badly under the influence of acetanilid, and I have strongly recommended the use of strophanthus to counteract its depressing effects upon the heart; were it not for the persistent opposition of the public, as much or more could be accomplished by means of the cold bath.

Haas, of Germany, however, reports its exhibition in one hundred and four cases of typhoid, and concludes that neither in large nor in small doses does acetanilid exert a specific or abortive action, but that it is an excellent remedy when used simply to control high temperature and modify nervous symptoms accompanying it, for which purpose more than fifteen grains daily is seldom required. Under the same conservative plan he has employed it with good results in *small-pox*, claiming that it lessens the fever and thus lightens the symptoms; that it acts as a tonic to the nervous system, producing sleep; and on the whole, tissue-change is thus favorably modified.

It has no microbicide action, as was believed at one time, although Guttman has employed it as a *topical dressing* for wounds with apparent benefit. The employment by solution in collodion has also been found serviceable, and in the form of a simple solution it has been used as a *gargle* in diphtheria. Newth prescribes it in combination with lanolin, ten to twenty grains to the ounce, with other ingredients as indi-

cated, as a local sedative in irritable ulcers and similar conditions. In *psoriasis* he is reported as saying that this combination with a mercurial acts like a charm, and has been found exceedingly valuable in erysipelas and other *skin affections*.

—Aulde, *Notes on New Remedies*.

ALBUMINURIA OF PREGNANCY.—The diagnosis of the Bright's disease of pregnancy is so easy as to require no notice here, but I may say that it is still too common to allow pregnant women to go to term without examination of the urine.

The prognosis is, however, of such importance as to demand closer attention, especially in connection with treatment, and to this I desire to call attention as the most important part of my paper. In the first place, the acute nephritis of pregnancy is much more serious than acute nephritis from any other cause, while uræmia is the dangerous symptom which is responsible for the fact, so much so that if this danger be escaped the prognosis becomes quite favorable, even more so than in acute nephritis from other causes. Rosenstein has shown that convulsions occur in about one-fourth of all the cases, and that about 30 per cent. of the eclamptic cases die. This mortality, which certainly is not overstated, it seems to me can be diminished. Scarcely a week passes in which some valuable life is not sacrificed to errors of practice under these circumstances, and this will continue to be the case until the profession is thoroughly aroused to a closer study of the complication in question. I have called attention to certain conditions, or combinations of conditions, under which Bright's disease associated with pregnancy demanded that premature labor should be induced to save the life of the patient.

It remains to point out briefly the treatment which should be adopted in cases where it is concluded to attempt to prolong gestation to the viable period or the end of pregnancy. To keep up elimination and thus to prevent the over-accumulation of toxic substances in the blood is, of course, the first indication. And while the kidneys present themselves as the natural channel through which this is to be accomplished they are seldom sufficient, and the bowels become the next, and indeed often the first and most convenient medium. Especially should constipation be avoided, while a brisk purge has often averted a uræmic attack. Continued looseness of the bowels is a safety valve which in these cases can scarcely be abused. The skin is also a serviceable medium for elimination, and is continuously availed of by warm woolen clothing next the skin, the effect of which is increased by the uniform temperature of the bed. Daily warm or hot baths, according as to which may be found more efficient, increase this effect, while the simple spirit of nitrous ether in full doses is a double agent acting upon the kidneys as well as most efficiently favoring the action of the skin. Jaborandi or its active principle pilocarpin in small doses, just enough to keep up a gentle but constant action of the skin, is also valuable. The hot-air bath or vapor bath may also be used with excellent effect. These are cases, too, in which a diet of pure milk or milk diluted with water or carbonic-acid water diminishes the dangers with which the patient is threatened.

When uræmia actually sets in any or all these agencies, except possibly jaborandi, may be employed in increased doses if available, but whatever may be the hesitation of inducing premature labor previous to its appearance there should be none after it.

—Tynan, *Med. Record*.

Medical News and Miscellany.

PINK-EYE prevails in Newcastle, England.

TYPHOID fever is still increasing in Edinburgh.

THE Chicago Hebrew Charity Ball netted \$15,000.

TYPHUS fever prevails epidemically at Florence, Italy.

ONE Pittsburgh house handles 400,000 pounds of oleomargarine monthly.

PEPTONURIA has been noted in Vienna as following the use of Koch's lymph.

THE scheme for University extension in Glasgow has proved a total failure.

DR. NICHOLAS SENN has severed his connection with Rush Medical College.

SMALL-POX has broken out in Silverwood and Cahuga, Vermilion county, Indiana.

THE item about the man whose lungs had dropped down into his stomach, has again started on its rounds.

It is thought that the Acadian leprosy came from Danish or Norwegian sailors wrecked on the coast of New Brunswick.

WASHINGTON is our capital, with a quarter of a million inhabitants, but it has neither a free library nor a medical journal.

THE annual charity ball for the Children's Hospital, Washington, D. C., will be given January 21, at the National Rifles Armory.

MESSRS. JOHNSON & JOHNSON have secured control of an apparatus for generating pure ozone, and expect shortly to offer it to the profession.

THE Merchantville people seem to get on very slowly with their suit against Dr. Jones' private insane asylum, which they claim to be a nuisance.

THE distress in London, during the unexampled cold of the last week, has raised the death-rate to 30 per 1,000. Aged people are "dropping off like flies in a frost."

THE Western Reserve University proposes a Museum of Natural History in Cleveland. Professor Herrick presented a paper on this subject, which is given in full in the *Cleveland Medical Journal*.

THE Indian Government has introduced a bill raising the age of consent from ten to twelve years. While it does not prevent child-marriages, it extends protection to married as well as unmarried children.

DR. JOHN A. REYBURN, formerly resident physician at the Medico-Chirurgical Hospital, was married, July 7, to Miss Margaret Kelly, of Philadelphia. Dr. Reyburn has built up a large and lucrative practice at Elkton, West Virginia.

DR. H. S. TANNER, who fasted forty days, now lives near Clinton, Missouri. He now challenges Signor Succi to sit down with him in Chicago during the World's Fair to test the matter in a ninety days' fast on water only, or, if Succi prefers, let the fast continue from day to day until one or the other yields the contest.

ST. TIMOTHY'S HOSPITAL AND HOUSE OF MERCY, Roxborough, though only in practical existence about six months, has already proved a great blessing to the people of the Twenty-first ward, particularly in the mill portions, where accidents to operatives are frequent. During the half year past over

one hundred and twenty-five cases of accidents have been successfully treated, besides numerous cases of serious illness.

The Board of Managers is considering the advisability of enlarging the hospital, and have started a fund, to be known as the Building Fund. The Bible class of the Leverington Presbyterian Sabbath-school has promised the first free bed for the institution, at a cost of \$250 for the year.

Before spring opens the managers will probably have arranged plans for enlarging the building so as to allow for a greater number of beds. Thus far contributions from churches and other organizations in the ward have been very gratifying.

It is shrewdly suspected, from the persistency with which the *Druggists' Circular* keeps that \$200,000 damage suit before the medical public, that the affair is a fake gotten up between the Standard Oil Company, owners of the *Circular*, and Radam, of "Microbe Killer" fame, for the purpose of working the medical press for free advertising.

—*St. Louis Med. and Surg. Journal.*

DR. TREMBLAY, of Quebec, swallowed by mistake, the other day, a quantity of aconite. Realizing that the poison would cause his speedy death, he hastened to a priest's house and received the sacraments. Returning home he made his will, and very soon died in the presence of his young wife and three children.

Query: If he had time to do all this, why did he not take an emetic and some whiskey, and prevent the fatal result?

PATENTS, ETC., on medical subjects, granted January 6, 1891:

Remedial cosmetic.....L. W. Trent.....Denver, Colo.
Crutch.....L. A. Wildhack.....Leadville Colo.
Dental nerve-brooch.....J. W. Ivory.....Philadelphia, Pa.
Liniment.....A. Rosenberg.....Philadelphia, Pa.
Medicine case.....L. I. Bodenhamer.....Kernersville, N. C.

TRADE-MARKS.

Toilet deodorant. (The word "Perilla").....B. F. Carver.....New York, N. Y.
Preparations for skin diseases. (The word "Cuticle").....D. D. Harr.....Belmont, Ia.
Ointment. (The words "Barbed Wire," the representation of a man in a sulky driving a trotting horse, and a section of barbed wire).....C. H. Harder.....Pittsfield, Ill.
Remedy for headache and neuralgia. (The words "Dr. Kohler's Andidote").....Kohler Manufacturing Co.....Baltimore, Md.
Remedy for headache, nervousness, and insomnia. (The words "Cure-It-Quick").....E. T. Laidley.....Port Jervis, N. Y.
Remedy for coughs, colds, constipation, and diseases of the blood. (The word "Prunine").....Prunine Medicine Co.....North Bend, Neb.
Remedy for certain named diseases. (The word "Femaline").....A. Bridgman.....New York, N. Y.
Alum. (The representation of the sun rising above the horizon, and the words "Rising Sun").....Orient Manufacturing Co.....Long Beach and New York, N. Y.
Unfermented and undistilled products of grapes and other fruits. (The words "Forbidden Fruit").....The Brook Lawn Farm Co.....Esopus and New York, N. Y.
Remedy for diseases of the stomach, and children's diseases. (The word "Duncan's").....The Webb Manufacturing Co.....Nashville, Tenn.

LABELS.

"The Soden Mineral Pastilles".....Soden Mineral Springs Co. (Ltm.).....New York, N. Y.
"Fruit Julep" (for medicine).....W. D. Harnist.....Edwardsville, Ill.

—CHARLES J. GOOCH, Patent Attorney.

LOCK BOX 76, WASHINGTON, D. C.

DURING the past fifteen months Halifax has been visited by an epidemic of diphtheria of a very malignant type. There are no available data for estimating the number of cases. It is thought by many well-informed that not less than 250 persons, mostly children, perished during the period referred to. And the end is not yet.

Why should the death-rate of Halifax be so high? Washed on every side by the sea; with favorable geological and geodetic conditions; a splendid water supply derived from sources absolutely free from risk of pollution; numerous breathing spaces; in short, possessing every element to make a healthy city, perhaps none more on the broad face of the earth—yet we have an annual mortality rate nearly one-half greater than the great city of London!

The explanation is easy. The city is exceedingly dirty, and the fact has been steadily ignored, notwithstanding frequent representations by the health authorities.—*Maritime Med. News.*

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from December 30, 1890, to January 5, 1891.

By direction of the Secretary of War, the following named medical officers will proceed without delay to Pine Ridge Agency, South Dakota, and report in person to the commanding general, Department of the Platte, for duty in the field: Captain Henry S. Kilbourne, Assistant-Surgeon; Captain Edwin F. Gardner, Assistant-Surgeon; Captain Edward Events, Assistant-Surgeon. Par. 9, S. O. 304, A. G. O., December 30, 1890.

By direction of the Secretary of War, Major John V. Sander, Surgeon, now on duty at Fort Ontario, New York, will proceed without delay to Pine Ridge Agency, South Dakota, and report in person to Brigadier General John Brooke, for duty in the field, and by letter to the commanding general, Department of Dakota. Par. 8, S. O. 303, A. G. O., Washington, D. C., December 29, 1890.

By direction of the Secretary of War, the extension of leave of absence, on account of sickness, granted Major Stevens G. Cowdrey, Surgeon, in Special Orders, No. 293, December 16, 1890, from this office, is still further extended one month, on account of sickness. Par. 8, S. O. 302, A. G. O., Washington, D. C., December 27, 1890.

By direction of the Secretary of War, First Lieutenant Ogden Rafferty, Assistant-Surgeon, is relieved from duty at Fort Sam Houston, Texas, and will report in person to the commanding officer, Camp Eagle Pass, Texas, for duty at that station, reporting by letter to the commanding general, Department of Texas. Par. 2, S. O. 301, A. G. O., December 26, 1890.

Changes in the Medical Corps of the U. S. Navy for the week ending January 3, 1891.

PICKRELL, G. McC., Assistant-Surgeon. Detached from U. S. Receiving Ship "Minnesota," and wait orders.
McCORMICK, A. M. D., Assistant-Surgeon. Ordered to the U. S. Receiving Ship, "Minnesota," as Dr. Pickrell's relief.

The Times and Register.

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ORIGINAL ARTICLES.		EDITORIALS.		THE MEDICAL DIGEST.	
	PAGE		PAGE		PAGE
ORIGINAL RESEARCH IN ITS RELATION TO NATIONAL ECONOMICS. By Frank S. Billings, M.D.	65	THE TRUTH AT LAST	79	Poisonous Disinfectants. Brit. Med. Jour.	79
SOCIETY NOTES.		ANNOTATIONS.		FRENCH NOTES. Roussel	82
GYNECOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE, MD.	75	In the West Indies Again	80	A Prolonged Form of Acute Cocainism. Hallopeau	82
The Examination of the Normal Pelvic Viscera. Kelly	76	Dr. Billings' Paper	80	Presence of Lead in Seltzer Water. Moisseau	82
Pathological Specimens. Williams	77	Trephining for Epilepsy	80	Pereirene	82
Palpation of the Normal Uterine Appendages. Kelly	77	The Vacancy at Jefferson	80	Sulfhydrate of Zinc in Dermatology. Barduzzi	82
THE POLYCLINIC.		Craniectomy for Microcephalus	80	Acetanilide in the Treatment of Ulcerated Hard and Soft Chancres. Basilevitch	82
JEFFERSON MEDICAL COLLEGE:		LETTERS TO THE EDITOR.		Treatment of Diphtheria. Neumann	82
Enlarged Prostate. Forbes	78	Correction. Keen	80	Application for the Rapid Dissolution of the False Diphtheritic Membranes. Caldevell	82
Chorea. Wilson	78	A New Use for Sulfonal-Bayer. Rosenberg	80	Powder for Scrofulous Rhinitis. Cozzolino	82
Vaginitis. Parvin	78	A. Wilford Hall. Hall	81	MEDICAL NEWS AND MISCELLANY, 83	
Malignant Growth of the Tibia. Morton	78	Remarkable Monstrosity. Price	81	NOTES AND ITEMS iv, xii	
Syphilitic Ulcer of the Leg. Stelwagon	78	BOOK NOTICES.			
Treatment for Goitre	78	A Compend of Diseases of Children. Hatfield	81		
To Abort a Bad Cold. Bartholow	78				

Original Articles.

ORIGINAL RESEARCH IN ITS RELATION TO NATIONAL ECONOMICS.¹

By FRANK S. BILLINGS, M.D.

A PAPER on original research would not be "original" unless treated in the same manner. To properly discuss such a question is not the simple task that many might be inclined to think it. The majority would probably assume that all one has to do is to define original research, and then detail and criticize the various methods of investigation. Such a plan would not, however, explain the most important point which we have to consider in discussing original research in this country, which is the very obvious fact that it has never received either governmental support or appreciation among any peoples of Anglo-Saxon descent, or such as have received or drawn their primary ideas of government and its duties and obligations from a British model.

Let me at once say that my view of looking at all social questions is entirely scientific. In all these matters it has been my endeavor to force sentiment of every kind or nature entirely into the background as much as possible. People do not understand the physiological value of sentiment, which is not to cause direct action on the part of the individual, but rather to call the attention of the reflective powers to certain phenomena, which should lead to action or not, according as sound judgment indicates; or, in

other words, *sentiment may be defined as the excitation of a fore-center in the brain by which to call reflection into action.* Human development is the greatest of all natural experiments, because of the possibility, mostly future, of mankind devoting some of its own energies to it. To me, country means nothing more than that a portion of our race has been confined to one locality by natural limitations. Nationality is a semi-farce dependent on an accidental or unwished-for conception following lust, and resulting in a birth which happens anywhere the mother may happen to be at the time of the birth of the child. The artificial limitations of race, nationality, or patriotism are barriers in the way of human progress. The masses are so much crude material which the scientific psychologist should see what he can do with to render it capable of avoiding the miseries due to their own ignorance. I do not believe in the "brotherhood of man" idea, but rather in that egoism which would remove miseries as a disease which may react on one's self, or those through whom one might suffer. Hence, it is for self-protection and self-benefit on the part of every intelligent person that original research should be inaugurated and supported by every people.

Now, as to why original research has not received proper recognition by the Anglo-Saxon race and the support of its governments? *Because, this race is the best example of the extreme development of the individualistic principle among the peoples of the world.* While in certain practical directions the Anglo-Saxons have advanced equally with and perhaps more than any other race, still their ruling principle has been "every man for himself, and the devil take the hindmost," which principle is very liable to give this country a period of satanic ruling unless checked very suddenly. The governments of Great Britain and the United States both deal with the peo-

¹ Read by title before the Missouri Valley Medical Association at its late meeting at Louisville, Ky., on account of unavoidable absence of the author. Also read before the recently organized Chicago Academy of Medicine.

ple as if the latter were so superhumanly intelligent as to know enough to govern themselves and do for themselves, as a whole, that which is best; in other words, government in these two countries is of the "let alone" policy to the most unintelligent degree. The intelligence of the country, as represented in the government, has not yet comprehended the fact that "that which is every one's business is no one's business," nor that the government has some higher duties than imposing taxes and creating artificial difficulties and barriers between peoples. No matter what form a government may have, its only duty is to study all the interests of the people. Individualism is individuality run to aggressiveness towards every one else. It is the result of the law of the "survival of the fittest" exemplified in *optima forma*. It holds unlimited sway in Great Britain and this country.

But there is another factor of still greater importance in the development of our race, which is Socialism, by which we mean the mass, or the whole as opposed to the aggressive or strong in it. The rights or welfare of the masses collectively have never received any consideration in either of the countries mentioned. Government in both is in the hands of one class, though to a greater degree in this country than in Great Britain. It is really to this fact that the failure is due to appreciate the value of original research and the support of the highest scientific education by Anglo-Saxon governments and peoples.

A statement which may at first seem preposterous to the majority is, that in the light of existing facts in social science the so called "freest governments" all tend to the support of an inconsiderate and despotically aggressive individualism, while the most advanced monarchies, Germany in particular, not only have checked it, and though in one sense more individualistic in theory, still they more fully recognize Socialism as the chief factor to be considered in political science. In other words, these governments rule on the principle that that which is essential to the welfare of the whole people must of necessity be of equal value to each individual among the people. *Where governments have recognized socialism as the chief factor in politico-social science, original research has been supported, and has proved of inestimable value to the people. Where governments have not recognized socialism as such a factor, and have advanced individualism to the most exorbitant development at the expense of the masses, original investigation and the highest scientific education have received neither recognition or support, to the great and continued injury and disadvantage of the people as a whole.*

Let us look at these statements a little more carefully, for it is indeed a singular phenomenon in social science to see the interests of the people carefully studied and means sought to advance them by the best forms of monarchical government, while the more governments have approached republicanism the more we see the interests of the people neglected, true socialism and an inordinate and aggressive individualism permitted to develop.

How few physicians think that the real cause of the non-support of science in countries having the most complete representative governments must be sought in the very factor which has been the claim of such governments to be their peculiar strength!

The truth is this "strength" is their greatest weakness.

When we come to ponder more closely over this matter we shall see why intelligent monarchies, taking Germany as the most striking example, have sought to develop all that could pertain to the benefit

of the masses, rather than to allow the strong among the masses to develop themselves at the cost of the rest of the people.

Let us see again what individualism is. Remember, it is not individuality, but rather individuality developed to aggressiveness on the rights and interests of the whole people.

Every intelligent government, no matter what its form may be, should seek its strength in the general welfare; because, if rightly administered, it must of necessity be a sort of barometer of the national prosperity. Again, an active monarchy is of itself strongly individualistic, and, hence, cannot for its own safety allow the development of either individual or collective aggressiveness. The true secret of a successful monarchy is to make its individuality apparent to all the people, and at the same time keep its individualism so controlled that the people as a whole will not feel that it is aggressive. That is approximately the condition in Germany to-day.

The eyes of the government are on the nation as a whole rather than on individuals in the nation, save to keep the too aggressive ones in check. The government endeavors to do that for the people which they have not time to study or inaugurate for themselves. This is *true socialism*, no matter what form a government may take. On the other hand, representative governments, or limited monarchical representative governments, as seen in this country and England, look to parties for their support, and parties look for their strength to the rich and influential men, whose self-interest impels them to contribute to the parties' demands in days of necessity; hence, those who control money, or have influence, have the ear and attention of the party bosses, in fact, own them, and the laws are made for them, and against the general interests of the masses. In other words, the battle in England and America to-day is between exorbitantly-developed individualism and a national socialism, while in Germany and on the Continent it is between a mistaken form of socialism, a bastard variety, which has become, or is in danger of becoming, aggressively individualistic, for a party can be too much so as well as a person, and true socialism.

No matter what the form of government may be, when individuals are allowed too full play, when the most aggressive, strongest, and most mercenary minds are allowed full run, it must always be at the cost of the masses, and general or national interests will be neglected, because of the deference politicians, or the ruler, pay to such men. This is just what is occurring and exists in this country and in England to-day. Unusually aggressive and strong men, or those favored by birth, have absorbed the natural resources of these countries, control all public means of transport, and what they have not seen fit to do for themselves has been left undone. There has been no honest, if any, representative of true socialism: the people. Whatever good there is in public institutions of France is due to the effects which true socialism exerted upon the government as a monarchy before the days of the republic, and in so far as the republic has inherited a very strong tendency to watch the interests of the people as a whole, so far is that country ahead of us in national development.

All we have to do is to look at the laboratories of Europe and their public health organizations in comparison with those of this country. All we have to do is to remember that nearly all the prophylactic knowledge which we have has been the result of investigations made in Continental laboratories. But that is not all. Nearly every technical interest in

the world has been benefited in the same way; hence, the wealth of the world has been most materially increased. Look at Helmholtz and Du Bois-Raymond's work in physics; Rokitsansky's, Virchow's and others in pathology; Pettenkofer's, Koch's and others in epidemiology; at Pasteur's, Chauveau's and others in that department of preventive medicine, the promises of which will surely be fulfilled in time, and are almost too momentous for human conception. I need not speak of the work of lesser lights, important as it is, in Belgium, Holland, Italy, Austria, distant Hungary, and still more distant Russia. The point I desire to make is, that this work has been of more value to humanity than all the mere money making inventions of man since man began to think, for they all have to do with the preservation and protection of human life.

Another point is, that this work could not have been done except under government auspices, representing the people, and by men so situated that they could devote their entire energies to the interests of the people.

A fact which will not be learned in this country until statesmen of great intelligence and large humanity take the place of the small-brained politicians we have now, is this: *that the very nucleus of national economics is a healthy and prosperous people, and as the people have to attend to their individual affairs, it is the absolute duty of those selected by them to attend to their general affairs, to study all matters liable to have a general application.*

Fools and idiotic editors of a partisan press may assert that such a procedure would be introducing parentalism into our government. Good, if that is so, then let us have the fullest recognition of the principles of true socialism. The trouble has been that we have the very best example of a bad form of parentalism possible in this country; a sort of recognition of the right of primogeniture of a few favored children, at the cost of the welfare of the balance of the family, the people, until now we are about to face a desperate conflict between a pampered, bloated and protected individualism of manufacturing interests and the desperation of true socialism. The masses against the few. It needs no prophetic mind to see which will eventually win. The scientific question will soon be to keep true socialism, mass-rights, from becoming individualistic, that is, aggressive and unjust.

The fathers of this country did a singular thing. Theoretically they sought to establish a socialism, but so much had they been imposed upon by monarchical individualism that they planted the seeds of even a worst form in the country by placing no restrictions upon moneyed or corporate individualism. They never thought that we should have money kings or interests in this country that would prove more dangerous to the welfare of the people than even George III had been to them.

Now, what has all this to do with original research? Have I not shown you? Have I not shown you that original research severally and in its entirety represents the welfare of the people as a whole, and hence must be supported by the people and conducted intelligently for them by those who should represent their interests?

I am fully aware that this is a rather striking way of presenting this question to your consideration, nevertheless, it seems to me that it is the only true way.

Thus far we have been talking about a subject which very few people know much about, even phy-

sicians, and, hence, it is about time that we attempted to define original research.

WHAT IS ORIGINAL RESEARCH?

To completely answer this question we must look upon it from two distinctly different points of view, viz.: The ultra scientific, and the practical, or in other words, the search for knowledge for knowledge's sake alone, which is the ultra scientific; and second, the search for the best means of applying the knowledge gained to the uses of humanity, which is the practical.

Original research, in the strict sense, is the study of natural phenomena in order to discover their nature and causes, and the laws by which they are produced. Science is the methodical application of acquired knowledge to the acquisition of new facts.

Original research is the search for cause. The spirit which inspires it is as old as humanity, and will keep on increasing in intensity as long as man continues to add to his intelligence. Original research knows no such comforting words as "where ignorance is bliss, 'tis folly to be wise." Its followers are ever irritably aggressive; they neither know nor do they want to know the meaning of content so long as something remains to be known, or until worn-out nature indicates that the time is approaching for "folding the hands in that sleep which knows no waking." Every natural phenomenon has its physical and material cause. Original research being entirely of human origin, and the result of the effect of natural phenomena upon the mind must be of itself a psychical phenomenon. An exact definition of original research is also the only true and logical one of that entirely misunderstood psychical phenomenon, religion. Theologians, and even philosophers, have all failed in defining religion, simply because they have assumed that it was something injected into a person—something supernatural. Not one of them has touched the hem of its garments. There is a natural psychical phenomenon to which the name religion can be given, and the cause which calls it forth is exactly the same as that which produces the desire for original research. Let us see what it was, and is:

True religion, the only religion, is that effect upon the mind, tutored or untutored, produced by natural phenomena of whatever name or nature, which, acting as cause, inspires it to seek cause.

No scientist will deny the logic of that definition, and it will tax the audacious ignorance of the theosophist to deny it.

The effect of such natural phenomena upon the untutored mind, either in the early days of human development, or where found to-day, was and is the production of fetichism, *which is the inspiration by an observer of a selected object with or by a hypothetical cause.* This result of the religious principles might be called "free religion," or better, "freethesophy," to use modern expressionless expressions, in that it allows the inspiring of as many objects by the beholder of natural phenomena as he assumes causes for. Fetichism, again, can be defined as the limitation of cause to a selected object in which the observer assumes it to dwell, while theosophy, or theology, may be defined as the non-limitation of cause to space, which is quite as full of ignorance as the stone block of the fetich-worshipper. *Theosophy is fetich worship without bodily or object limitations.*

Original research knows no such narrow boundaries. In its crudest form it came into the world when the first man sought the cause of any natural phenomenon. It is coëval and identical in character with the

psychical phenomenon called religion. Wherever a human mind has sought cause original research has existed. It is not limited by geographical or ethnographical boundaries. It is that great act of the mind which makes and has made man in the only distinctive sense, man. Now, the theologians, in their ignorance, say rightly, when they declare religion to be the great and exclusive characteristic of man. Dare they deny that original research is also? Let them howl "infidel" if they will, and I will throw it back in their teeth, for does not Job tell them, "Can ye by searching find our God?" And has not the greatest teacher of the spirit of true religion taught them?

"Shall any gazer see with mortal eyes,
Or any searcher know by mortal mind?
Veil after veil will lift, but there must be
Veil upon veil behind."

Who have been the veil lifters? Who but the original investigators, commencing with that unknown one who first, like a true materialist, said "and man was made of the dust of the earth" because he had seen that "like produces like" was a law of nature, but unable to comprehend, and rightly, according to his light, how vitality could be in or of dust, had, in his ignorance, to assume a life-giving, creating spirit, capable of permeating dust? Beginning with this wonder of the sages, the veil lifters come down through the ages each one endeavoring to seek the true nature of natural phenomena; the secreted causes of which always remain largely hidden from the view of the original investigator. Who but they have taught us all we know of the origin and nature of animal life? In the beginning all seemed hidden behind that veil of darkness which theologians have tried to fasten upon the minds of man. How glorious the band of veil lifters in our own especial branch of research! Though we cannot call to mind all of them at this time, let us venerate the memory of a few of the giants among them, beginning with that majesty divine, Aristotle; what a flood of light was shed in behind the corner of the curtain lifted by that son of Grecian culture? So much light did he let into the abyss of intellectual darkness, that even the clouds of the dark ages could not shut out its life-giving rays. The corner dropped for awhile, to be again lifted by the genius of Hippocrates, Galen, and the veil lifters of the early centuries of the Christian era, though they added but little to the light reflected by the work of the greater master.

For centuries it burned like a vestal-fire upon the altars of knowledge; sometimes it flickered to a dim spark, but again burst forth under the skilful touch of a Vesalius, sending its warming and dispelling rays into the clouded ignorance of priesthood and sanctuary. For the first time in its history the human form actually became divine, for the son of true inspiration had given the veil a mighty lift. Vesalius let the light in upon human structure, but how the machine worked, what gave it life and action, was still a veiled subject and remained so until another genius touched the already lifted curtain with magic wand, and lo! the streams began to move, and man was told something of that wonderful current, vital life's mystic energies, the blood, and Harvey inscribed his name upon the uplifted curtain, and physiology was born. And so went on the work. A Hunter took hold of another corner, letting the light into the mysteries of disease and death, and pathology was inaugurated as another branch of original research, to be followed by Boerhaave, Hal-

ler, Bichat, Lænnec, Goethe, Muller, and an ever-increasing army of investigators, each of whom lifted the veil somewhat; each of whom had been inspired by Goethe's immortal words, "Mehr licht." But this lifting of the veil, even in our own branch of research, was somewhat one sided. The other side was still draped in mourning in token of the griefs and sufferings of humanity. Many earnest men had made mighty efforts to stem the tide of the great devastating plagues which impoverished humanity and almost destroyed nations, but the wail of anxious millions only too pregnantly manifested the futility of their endeavors. But when did man cry in the bitterness of his anguish to his brother man that some one did not rise up to lift the veil and let in the light? So it was this time! The cry of the ages brought forth the immortal Jenner, and the greatest life-saving and misery-preventing principle, the greatest blessing man ever gave to man, was inaugurated, the *prevention of non-current diseases by inoculation*. Now, indeed, the light was great. But the work went on. So much light only made more pregnant the darkness beyond, and this darkness inspired others to work on and seek to lift up still more the veil upon the uplifted folds of which we may read the names of a Rokitsansky, a Virchow, a Pettenkofer, a Koch, a Helmholtz, a DuBois Raymond, and a Ludwig, and then, with one mighty throe, comes Pasteur, and what a light do we see? The star of hope lifted above the horizon by Jenner, now shines in glorious radiance in the heavens, and original investigators may safely promise the eventual prevention of every non-recurrent disease of life by inoculation. Then shall mothers bring forth children with hope, and man become monarch of the grave in so far as man can control that grim and natural king, death.

WHAT MAY BE EXPECTED FROM ORIGINAL RESEARCH IN GENERAL.

In our previous remarks it has been our endeavor to show that it is the duty of the government to study the interests of the people in every respect. With the advance of civilization and the increase of population the question of individual prosperity, by which is simply meant the means of acquiring the actual necessities for comfortable living, is becoming more sharply circumscribed, and though the indications of wealth are constantly increasing, it is becoming more and more centralized in the hands of a few, the whole tendency of government being to throw it in that direction rather than to increase the prosperity of the masses. The acute danger must be apparent of a revolution against this extravagantly developed individualism, which has brought about this condition of things. An intelligent government should see that the rights of the masses have due consideration at once, or else no one can answer for the results when socialism begins aggressively to assert its own individuality. One of the things which will, or can be made to, play an essential rôle in improving the condition of the people is the increase of the reproductive resources of the country in every way possible. The matrix of these resources is Mother Nature, where much is locked up in a crude form, or much refuse material is thrown away, for which uses could be found by the diligent investigation of original researchers carried on at the expense of the people. In this regard one has only to call attention to the increased earning power given to thousands of people, or better, the increased employment of people, through the discoveries of the aniline dyes and other

chemical substances in coal-tar, which was once a refuse only gotten rid of with difficulty.

It cannot be denied that every new discovery increases the means of employment offered to the people; nor can it be denied that it is the duty of the people themselves to take every means possible to increase these discoveries. It is protection of the public welfare of the truest and highest kind, and, what is grander still, it is not only beneficial to the nation in which such discoveries are made, but equally so to all humanity.

The results of all scientific investigation should be free to the world. Without discussing the matter further, let it be said that the benefits of all inventions should also be equally free: the inventor to be paid for his discovery in proportion to its value by the judgment of a commission or national department of experts, appointed to decide upon such questions. This is the great difference between inventors and original investigators; the one have immediate financial returns constantly in mind, the other simply the discovery of new facts. Remember this, that although we cannot always see the immediate practical value of the addition of a new fact to the fund of knowledge, still no one can ever tell how much vital importance may be hidden in it. The uneducated and unreflecting would probably question any value to the work of Darwin and the principle of evolution, which has found its full corroboration in the stimulus given to original research by the work of the greatest generalizing naturalist the world has ever produced, and yet the very future of social development, the reorganization of the entire social fabric, and the formation of government on everlasting and logical principles, all depend upon a clear understanding of the principles of life which have followed as the natural result of the work of Charles Darwin. Still, there has never been, and never will be, any "money in it" for the original investigator—past, present, or future.

There is another practical side of this question of original research which needs to be called to the attention of those who know little or nothing about it. Aside from the discoveries which the people have a right to expect will result from it, original research calls for a vast deal of mechanical ingenuity and the invention of instruments of all kinds and shapes and material, not to speak of its demands upon chemistry and nearly every branch of research, so far as especial lines of investigation are concerned. All this creates a demand for labor, and increases constantly new calls upon the wage-earners, the value of which is inestimable. Take, for example, that branch of investigation which is looked upon with the most suspicion by professionals and by the laity, patho-biology. Leaving out of consideration entirely the question as to the practical value of the results of this variety of research, which, by the way, is infinitely greater than is generally admitted, the amount of new work created, the calls for labor in building laboratories, the increased demands for a very high class of mechanics in the manufacture of the high power microscopes, the continual demand for new instruments according to the peculiar ideas of workers in their endeavors to solve new or intricate problems, the demands on chemistry and other results of research have in themselves given labor to so many people in so many lines that even had a single practical fact not been established, the endeavor to discover it has brought more benefit to humanity at large, tenfold over, than the entire expense of the work itself. Whatever provides labor enough to keep one human being alive and free from misery, is to be counted as a blessing to human-

ity. And so, an idea which stimulates research and calls for investigation to prove or disprove it, if it calls into existence only labor enough for one man, is worth so much to the world. So much for original research in general.

Those who desire to pile up the actual facts of value it has contributed in all its branches to the world, certainly have their hands full. Such testimony in statistical form would be most instructive matter to present at once to the active consideration of the governments of the world, and is nowhere more needed than in this country of a stupid and ignorant press and unintelligent legislators.

ORIGINAL RESEARCH IN ITS RELATION TO PUBLIC HEALTH.

How many of you think that the two great social factors—individualism and socialism—have played the essential rôle in the investigation and development of this, the most important branch in the study of medicine in its relation to national or human welfare? You doubt it? Let us see. Socialism, in the form of national individualism, has been the primary factor in all the great wars of Europe during the past century. Human ambition—individualism—on the part of a king or ruler, may have been the exciting factor; but had he not had patriotism—socialism become individualistic, the people as one—to depend upon, no war would have resulted. Whether, for good or bad, the touch between the people and their ruler is much closer in monarchies than in republics, because the solidity of the government and the welfare of the ruler are far more dependent upon the welfare of the people in a monarchical form of government than in the transitoriness of position common to those upon whom government devolves in republics. I have heard a story with regard to that master of sarcasm, the poet Heine, the truth of which I cannot answer for; but it beautifully illustrates the point I desire to make. It is said that when once asked what was the economical political relation of the working classes of Germany to the government, Heine answered, "Fornicate, fornicate, fornicate, and see to it that you make plenty of food for French cannon." The same might be equally said of all the other nations of Europe, and it is the complaint of France to-day that her people are not doing all they can to supply the necessary quantity of this kind of food to feed the ravenous appetites of German cannon. Looked at from one side of the story, such an idea seems barbarously inhuman; looked at from other sides, it has many advantages. Though no follower of Malthusianism, it is easy to be seen that the smaller the number of children the greater the comforts of the parents and their ability to take care of them. But that is not the point of value in the discussion. Where every male represents a factor in the integrity of the nation, his health and prosperity, as well as that of every family, must, of necessity, have a direct value in the consideration of the government; and it is this very fact, the fact that the interests of the people as a whole—socialism—have been the stimulus that has led to the support and development in Europe of original research, not only in matters pertaining to the public health, but national prosperity as well; and we find this development the most extensive in those nations between which the national rivalry is the most intense—France and Germany—where each man counts the most as a national defender and supporter, and less developed in proportion as this one great factor does not come into active prominence;

but nowhere is it neglected entirely except in those nations where people do not come into consideration in this way, or where the prosperity or better existence of the government does not actually depend upon the condition of the people individually and collectively as in Great Britain to a large degree, and in this country to such a great degree that it scarcely comes into account at all.

Having adopted this principle, having seen its practical value in every direction, the governments of Europe have laid a wise and solid foundation for the coming day of "Peace on earth and good will to man," when international socialism shall have triumphed over national individualism, through the ever-augmenting results of commercial intercourse, until the business relations between people shall have become so just and of such vast financial importance that no nation will dare disturb them, and the swords shall be welded into plough-shears and the metals molded into life-saving, instead of destroying, instruments. Money must first become such a king that national individualism cannot dethrone it, and then shall come the day when international and intra-national socialism shall rule in the spirit of justice between men and nations. Then the highest intelligence will be appreciated, and the original investigators in every department of research will be esteemed as the greatest men in the world—the evolvers of knowledge, the founders of national and human prosperity.

The answer which will probably be made to the portrayed condition of original research in this country and Great Britain, in comparison to Europe, is: "Oh! those are parental governments!" No one but an ignorant fool could possibly make such an answer. No government exists, or has ever existed, save at the will of the people. When socialism has been fully aroused, the people—the most individualistic governments the world has ever known—have either yielded their aggressive individualism to the demands of socialism, or have been crushed, even though another individualistic government has been suffered to take the place of the first, simply because of the incompetency of the people to assume the reins of government; but in each one of these convulsions—socialism—the people have gained something, and individualism lost. We are now on the verge of the first struggle in which socialism will come out triumphant, and the human race begin its age of most wonderful development if socialism has intelligence enough to trust to the greatest intelligence of the nation; but if it allows itself to be broken up into socialistic-individualisms (communes or parties), with all the evils of the moneyed individualism of to day, then the future of humanity will be one of international and local social suicide.

All governments, whether created by the people or existing by sufferance of the people, being still of the people, who, then, can deny that a nominal or theoretical socialism like the United States, a government of the people, for the people, by persons selected to represent the people, should not be more intensely interested in all that pertains to the welfare of the people than one which exists merely by the sufferance of the people, as a monarchy? The real question is, Have the people, socialism, intelligence enough to comprehend the importance of this fact? Thus far in its history they have not had. What is every one's business has found no one to undertake it in this country to its fullest extent, and in Britain to a less degree. But we are learning by bitter experience that there are common and general interests of

the people which must receive the most intelligent attention on the part of those selected to attend to all such matters; and among these things the public health is the most important.

What other disaster can exert so widespread and profound a disturbance of the individual, communal, and national welfare as the prevalence of some devastating plague, such as Asiatic cholera or the yellow fever? The business community of all kinds can testify to the acuteness with which it feels the existence of even a very limited outbreak of the yellow fever in one of the Southern States. The whole country suffers in barometrical-financial sympathy with the afflicted part. When the eruption is as extensive as that which afflicted Memphis in 1878, the financial barometer sinks to a very low degree in all parts of the country. Not only does the financial barometer fall, but the social one is in such intimate relation with it, that a cloud settles on the families of the land in silent sympathy. Not only this, but the families broken up, the widows, the fatherless and the motherless, in the afflicted localities, have given bitter testimony that humanity owes to itself the duty or protecting itself from such ravaging pests. But we need not call up such extensive disasters to establish our principle that the health of a nation is the very nucleus and foundation of its prosperity. Local outbreaks of scarlet fever, diphtheria, or typhus not only cause serious effects in the locality afflicted, but even extend to unknown distances, causing disturbances of a financial character. Even the death of the head of a large business, a single person, is felt as much by those having business relations with him as by his immediate family, and financially sometimes more so, when a large business, employing many persons, is closed up in consequence thereof. We can leave all sentiment entirely out of consideration and truly say that the financial disturbances caused by the death of mature individuals, and the actual suffering due to financial influences alone upon families from the diseases which it is in the power of original research to discover means to prevent, is greater than the disturbances caused by the occasional outbreak of such a pest as Asiatic cholera. The trouble is that we do not stop to think of these every day occurrences in our busy, rushing lives. Let national statistics once show what the sum total of the financial disturbances from such diseases is, and the whole world would open its eyes in blank amazement. Mind you, we say from diseases which it is in the power of original research to eventually bring very close to a condition of actual prevention.

Now, let us turn to the sentimental side: Practically speaking, the life of a child is worth nothing; sentimentally, it is worth everything. Sentimentally, even beyond the saving of the life, the possible power of saving our loved ones from the tortures of disease and the life-long misery often consequent to it, especially that incarnation of satanic devilry, scarlet fever, is worthy of the life-long endeavors of hundreds of original investigators and the accumulated treasures of any people. What true father, what fond and noble mother, even though a thousand times a millionaire, would not willingly sacrifice every cent to save a beloved child from the terrors of scarlet fever, and be willing to begin life's work over again to have the dear one alive or free from the too frequent results of that disease? This can be done. Every non-recurrent disease of life is as absolutely certain of eventual prevention by means of original research as that nature herself has indicated the fact by the non-recurrent character of the disease. Let us

look at the list to which nature has given us this key. First in importance, scarlet fever, then yellow fever, typhoid fever, measles, mumps, whooping-cough and chicken-pox; not to speak of small-pox, over which the victory has been won, and the grave robbed of thousands of premature victims. We need scarcely speak of what has been done through the sharp practical observations of men in past ages, and even the present times. The black death and bubo pest have been banished from Europe; Asiatic cholera has become a wild beast well tamed. The yellow fever is now kept well confined to its native haunts; but still the greater victory of preventive inoculation remains to be won over many of these diseases by original research.

Let us look at another side of the story.

The first great nucleus, the keystone of national economics, is the public health. "Public health is public wealth," has become an axiomatically accepted expression. Next in importance are the strictly agricultural products of the country, all of which can be benefited and increased, and all of which also can be preserved from many dangerous diseases or enemies, through the results of original research. Then comes our animal wealth, which suffers a financial injury of not less than one hundred millions annually from preventable diseases, of which swine plague represents not less than thirty millions, and other diseases the balance. But, beyond this financial loss to the producer, we must consider the still more important loss to the people of the country, when such a vast amount of food, which, taken in connection with the loss in our strict agricultural products, means an amount of food capable of supporting a population again as dense as that which we now have.

We are a fortunate people that we can bear such losses; but we feel them in the increased cost of living, though no one stops a moment to think how it comes about. Much work that has already been done, the incontrovertible testimony of nature herself, shows that not only can these diseases in our own species and of our vegetation be prevented, but also in our live-stock. No unprejudiced person will deny that swine plague can be and has been prevented by inoculation, for it is being done in hundreds of cases every day in the year, though I would be the last person to claim perfection for the method. The same is true of Dr. Paquin's work, in Missouri, in the inoculative prevention of the so-called Texas fever in cattle, though he has not yet had time to develop it to the degree which has been my fortune in the prevention of swine plague.

The establishment of such facts is not such a great matter after all. Nature has demonstrated in millions of cases that both diseases are non-recurrent in character, and all that the investigator has to do is to study the natural disease closely, and repeat her work. If successful in reading nature correctly, the investigator will eventually succeed in producing a mild and non-recurrent form of such a disease with equal certainty to that which takes place under natural laws. I think Freire has been somewhat successful in the preventive inoculation of yellow fever, because I believe he gives sufficient evidence to show that he has the germ in his cultures. You must know that Pasteur successfully inoculated against the rouget, a European swine disease, for several years without ever having seen the germ, and in fact did not know what it was until demonstrated in his own virus by German investigators. No one doubts the successful accomplishments of Pasteur's, Chauveau's,

and others preventive inoculation against hen-cholera, black-leg, and anthrax, and yet in not one of these diseases does preventive inoculation stand upon such an incontrovertible amount of testimony as that of the swine plague in this country.

Having called attention to the immense importance of original research to these vital factors in national prosperity, it is but necessary to again recall its importance in relation to development of the next great economical factor in our national resources—the treasures hidden in the earth, our minerals, which contain in their dense structure secrets of unknown and, at present, uncomprehended value that depend upon the investigator to reveal, to make work for our children and our children's children. For the people as a whole to attend to these matters; for them to seek to protect their lives and their food products; to increase their amount and to provide for means of living and the means whereby to earn more to live by, even though they depute the task of providing for and regulating such work to their selected representatives—in other words, to the government—is "parentalism," is it? If it is, and is neglected on that account, then humanity in this country deserves to go to perdition, and the sooner it goes the better, for to deny the importance of such work to its own welfare would be to condemn the people of this country as a nation of idiots, which they are not, though they have been idiots to allow the individualists among them to usurp their rights and make slayes of them through the subserviency of American politicians. But, "Salvation is free!" The days of individualism and its subservient "boss" are numbered in the land; the people are awakening to the fact that government in this country must be of the people, by the representative intelligence among the people.

ORIGINAL RESEARCH IN THE UNITED STATES.

As nothing to speak of has been done by the government with regard to the mineral resources of the country, and very little as to the agricultural, we may pass over these two factors in our national economics, and come directly to the consideration of original research in relation to the public health and our animal industries, which can be treated under one head. Original research is only possible either from private resources, endowment, or national or state support. We will consider the first two varieties under the head of "Individualism and Original Research."

While original research depends very largely upon the individuality of the investigator for its success, it is true here, as everywhere else in social science, that it suffers and is strangled to death by individualism. That form of individuality in original research which contributes to the benefit of the people may be called individualistic-socialism, or that enthusiasm in the investigator which forces this individuality to express itself in unrestricted devotion to the welfare of humanity, with utter disregard to self. Those investigators who are simply inspired with vanity for a mere discovery of facts, and to have their names connected with some germ, are not inspired with the true spirit of humanity, and should be classed as scientific monstrosities in the annals of the curiosities of social development. Their spirit is individualistic; not socialistic. They are not scientists in the highest and noblest sense. They are egotistical scientific misers.

Individualism again presents itself in other forms in this country, which are not without interest, one

of which is the endowment of laboratories for original research in connection with medical schools by men of wealth, who owe it to the fact that the people, socialism, have allowed too free scope to the individualism of such persons. These institutions owe their endowment mostly to the vanity and cowardice of an individualism which is shrewd enough to recognize the fact that unless it built itself some such monument it would soon pass into perishable forgetfulness, notwithstanding the wealth it has accumulated by means of robber-tariffs and the aggressive absorbing of the property of the people.

Another form in which it asserts itself is that these endowments have been sought and obtained by private, chartered, speculative medical schools, at which the fair name of original research has been prostituted to advertising purposes, and the institutions not devoted to the nobler ones for which they were supposed to have been endowed and advertised as having been erected.

I need quote no actual facts to prove the correctness of these statements to you, but rather ask you to turn to the records and see how many practically valuable facts have been added to the fund of preventive medicine by work done at the Carnegie and Vanderbuilt laboratories in New York, the Hoagland in Brooklyn, and I regret also to have to call your attention to the very small amount of actual work done at Harvard Medical School and Johns Hopkins University. I ask you for the practically valuable facts contributed by these institutions, that is all:

Something in extenuation might be claimed for them in the fact that they are all places of instruction as well, were it not that the Continental laboratories are nearly all also of the same nature, and many of them bear no comparison in extent or fittings to these American affairs. In comparison thereto I call your attention to what Dr. Paquin has done in Missouri in a poorly fitted laboratory, with but little means and no assistance, while, at the same time, attending to the onerous duties of State Veterinarian. Paquin has demonstrated beyond question that Texas fever in cattle can be prevented by inoculation, which has a very intimate bearing on yellow fever. That is more than has been done by all the investigators at the laboratories mentioned combined. I only draw this comparison to emphasize a point which history so far has endorsed, and which futurity will confirm, that to conduct true original research in the interests of the people it must be done in the name of the people, for the people, and controlled by those representing the people. Whatever results have been obtained in either this country or Europe all go to confirm this statement.

I do not deny that an endowment laboratory can be so regulated as to be worked in the interest of the people, but to do so the endowment must be to the people, either to the government, national or state, as an independent national or state institution, but its management must be left to the representatives of the people. In other words, it must become a national or state institution. It might be casually remarked that this suggestion could be well adopted by some of our wealthy men of broad humanitarian sympathies, for by endowing such institutions (especially in connection with state universities) schools of mines or other institutions for original research in any of the indicated directions, they would confer far more lasting benefits upon humanity than by endowing private institutions, or departments, in connection with any endowed or chartered institutions, for

in these state institutions the education is free to the people, and the poorest genius has an equal chance with the richest.

ORIGINAL RESEARCH UNDER GOVERNMENT SUPPORT.

Whatever original research has been done in this country of any practical value to the people has had reference to the prevention of animal diseases, or to do with the feeding and breeding of domestic animals, and thus far has been done at state and not national laboratories. Let me casually remark that the State of Missouri has the proud distinction of being the first of any English-speaking people to select and send a person to Europe, or anywhere else, to especially study and fit himself to do original work in preventive medicine. To my friend, Dr. Paul Paquin, belongs the exclusive distinction of having been thus honored by a state government.

As to what has been done under the auspices of the national government in the interests of preventive medicine, it is only necessary to call your attention to the miserable failure of the investigations in yellow fever, which have been conducted since 1878, and those in animal diseases for the same length of time conducted under the auspices of the Agricultural Department.

The true reason that all this protracted work has been such a dismal failure must be again sought in that extravagant individualism which placed the work in the hands of single individuals, who in their turn have not only done their utmost to monopolize it, but have almost malignantly discouraged the employment of other investigators by the Government or by the States, and so far as the Agricultural Department is concerned, gone so far as to use every possible endeavor to interfere with, stop, or discredit work inaugurated at state laboratories.

These statements are indisputable facts in history, and have ample evidence to their confirmation.

In placing this work in the hands and under the absolute control of single individuals the National Government has been true to and consistent with its ruling principle, which, as has been stated, has consistently been to foster inordinate individualism all possible, regardless of the welfare of the people: that is socialism.

A wiser and far more practical policy would have been to have built a suitable laboratory and employed a large number of competent investigators, and thereby recognized the socialistic principle upon which the government is founded, and also have assured the people some absolutely practical results through the natural ambition and rivalry of a number of workers. When, however, a bill for such a laboratory was placed in Congress, it not only met with the bitter opposition and influence of those investigators who monopolized original research under the support of the government, but also found no support from the medical journals of the country (with a few exceptions), simply because they are largely the organs of schools, or because the editors are too ignorant to appreciate the fact that the medical profession holds, in a measure as a public trust, the public health, which it should do its utmost to protect in every way possible. The imbecilic sarcasms of the public press do not deserve attention. To the credit of the great live-stock press of the country it may be said that it generally supported the bill, with an intelligence and unanimity of purpose which was strongly endorsed by the live-stock breeders' associations of the country.

A NATIONAL SCHOOL OF SCIENCES FOR THE CONDUCT
OF ORIGINAL RESEARCH AND THE EDUCATION
OF INVESTIGATORS.

As has been just mentioned, a bill for a national patho-biological laboratory for the study of human and animal diseases has been before Congress for the past two years, and though temporarily killed by the natural enemies of the people, the political investigators in the employ of the government, it still retains vitality enough to come up again and again as a pretty lively corpse, and will eventually be passed, unless the suggestion about to be made should receive more general acceptance, of which it is far more worthy. As, however, the laboratories for which the bill in question provides, are of primary importance, I introduce a copy here, in hopes that it may attract the attention it deserves.

"A BILL

FOR THE ESTABLISHMENT OF A NATIONAL
LABORATORY.

"*Section 1.* Be it enacted by the House of Representatives and Senate of the United States of America in Congress Assembled, that, for the purpose of better protection to the health of the people of the United States from the ravages of contagious, infectious, and malarial diseases, and for the preservation and protection of the great live-stock interests of the country from the decimating devastations of pestiferous diseases of a similar nature, and for the more complete elucidation of the relation existing between many diseases of our domestic animals and the life and health of human beings, whose business calls them into intimate relations with them, and of the welfare of the public as consumers of drinking water, food, drugs, animal food or animal products, there shall be established at Washington, in the district of Columbia and the United States of America, a laboratory for the purpose of making a continuous and scientific study into the causes and nature of the classes of diseases herein mentioned, and of all the subjects connected therewith bearing either upon the public health or animal economies of the country, and that said laboratory be known as the National Laboratory of the United States.

"*Sec. 2.* The laboratory shall be in two departments, and the general supervision and control of said patho-biological laboratory shall be in the hands of the Secretary of Agriculture and the Supervising Surgeon-General of the Marine Hospital Service, who shall, at the completion of the buildings and grounds herein provided for, appoint two distinct and independent directors, each of whom shall be respectively the head of a distinct and independent department of investigation, and who shall be known, respectively, as the director of the humano-patho-biological and the zoo-patho biological institutes of the national laboratory of the United States. The directors of the institutes named above shall be competent and skilled patho-bacteriologists, the one in human, the other in animal diseases, and shall, respectively, be graduates from a medical or veterinary school, college, or department of some university, and shall have each been engaged in and have published in some accredited journal or report, investigations which have gained for him a reputation in the medical scientific world, and have demonstrated his fitness for the position and responsibilities herein provided for.

"*Sec. 3.* That the salaries of the directors of the institutions above mentioned shall be five thousand dollars per annum.

"*Sec. 4.* That the Secretary of Agriculture and said Surgeon-General shall, respectively, appoint, or detail from the general service, an assistant to each institute provided for in section 2, at a salary of two thousand five hundred dollars each; one assistant to be a creditably graduated doctor of medicine, and the other a doctor of veterinary medicine, both of whom shall be citizens of the United States, and shall have done creditable work in the field of patho-bacteriological investigation.

"*Sec. 5.* That the directors of each of said institutes named shall appoint, subject to the approval of the Secretary of Agriculture and Supervising Surgeon-General of the United States Marine Hospital Service, respectively, such other assistants and servants as shall be necessary to carry on the work herein provided for.

"*Sec. 6.* That the directors of each of said institutes shall, with the approval of the said Secretary, or the said Surgeon-General, appoint to each of the institutes named a competent chemist, each of whom shall be competent to conduct investigations in search of the character and value of the ptomaines or toxins produced in the evolution of micro-organismal life, and who shall have previously distinguished himself in the line of research. The salary of said chemists shall be five thousand dollars per annum. The directors aforesaid are authorized also to employ such assistants and servants for the aid of the said chemists as shall be necessary to the faithful and thorough conducting of their investigations.

"*Sec. 7.* That the salaries of the persons herein named in connection with the work of the patho-biological laboratory of the United States shall be paid out of the funds in the Treasury, upon requisitions drawn by the Secretary of Agriculture and said Surgeon-General, respectively.

Provided further, That in order to stimulate and encourage original research into the cause and nature of the classes of diseases herein mentioned, the Secretary of Agriculture and said Surgeon-General are hereby authorized to offer the free use of such rooms and appurtenances in their respective departments of the said laboratory as shall be provided therefor in said laboratory, to a limited number of citizens of the United States as may volunteer their services, at their own expense, and who are known to them to have been creditable graduates of an honorable veterinary or medical school or college, and to have distinguished themselves by original research in the class of investigations herein provided for; the room, necessary materials, and appliances to be supplied them without charge. Said voluntary workers shall agree, in writing, to accept two young medical or veterinary students of American schools or colleges, to be selected by the Secretary of Agriculture and said Supervising Surgeon-General, respectively, as assistants and students, and to instruct them in the lines of work they may be engaged upon. Such students shall receive no compensation, and must be at their own expense, except as to the instruments and implements necessary to work with. The said volunteer investigators in either department must, furthermore, agree, in writing, to continue any given series of investigation commenced until completed to the satisfaction of the Secretary of Agriculture and said Supervising Surgeon-General, respectively, unless otherwise excused thereby, and must further agree to engage upon any special line of research collateral thereto that may be deemed necessary by the director of the institute of the laboratory in which they may be engaged. They must further agree that all the results and benefits of

any work performed by them in any department of this laboratory shall become the property of the Government of the United States of America, and be reported in a full and exact manner for publication in the reports of the same. With and by the consent of the director of the institute of this laboratory in which such a volunteer may be working, and with the written agreement aforesaid, such volunteer investigators may have the privilege of publishing advance reports of their work in the medical or scientific journals of the country.

Provided further, That the sum of five hundred and fifty thousand dollars be hereby appropriated from funds in the Treasury of the United States for the purpose of purchasing the necessary land in the city of Washington, and for grading and fencing the same, and for the erection of the necessary buildings thereon and the equipment of the same, in accordance to the use herein provided for. For the purchasing, grading and fencing the land, one hundred and fifty thousand dollars; for a laboratory building, two hundred thousand dollars; necessary apparatus and equipment of the same, one hundred thousand dollars; for stables, pens, cages, and so forth, and residences for grooms, employes, one hundred thousand dollars.

"*Sec. 8.* That the Secretary of the Treasury of the United States, the Secretary of Agriculture, and the Supervising Surgeon General of the Marine Hospital Service shall constitute a Board of Trustees and a Building and Purchasing Committee for the said laboratory, and the persons named are hereby empowered to purchase a location, secure the necessary plans, and build and equip the said institution in the manner herein provided for, and to draw the necessary warrants for the payment of same, in accordance to the letter of this Act.

"*Sec. 9.* The Secretary of Agriculture and the Supervising Surgeon General of the Marine Hospital Service shall each year, respectively, submit an estimate to the Secretary of the Treasury for such appropriation as may be deemed necessary for the maintenance and preservation of the laboratory, and the salary of the officers and employes, and full reports of the operations of the laboratory shall be included in their annual reports."

During the late session of Congress Mr. Edmunds, of Vermont, introduced a bill for the erection of a National University to be built by the Government in commemoration of the discovery by Christopher Columbus.

The idea is grand from every point of view, could we but have a National University where every branch of original research and study would be conducted on the highest and most exact principles of scientific investigation; where the truth alone would be sought and taught utterly regardless of the idols it demolished, or the ideas sanctified by usage, which it crushed to the ground; where the poorest youths of the land, male or female, having the genius for and the hunger to acquire scientific knowledge, could have the freest opportunity, regardless of expense, and where bigotry and intolerance of any and every kind would be absolutely certain of being barred out; where religion would be studied in the spirit of its twin-sister, original research, and where the theological devil could never work in his discordant horns. Could we have such an institution of education and general research as that, its value to the country could not well be estimated. Personally, however, I have a dread of the very name university. Not only in this country but in England that name

suggests a theological suspicion, and to have that influence control, or even enter a national institution of education or research, would be absolutely certain to damn its influence and advancement for an indefinite number of years; but, could we have such an institution on the German plan, every scientist, every broad and humanitarian mind in this country, every honest physician should, and probably would, gladly advocate its erection and organization.

I am dead set against any encouragement whatever to the entrance of the theological devil into all or any government educational institutions. It is present in one form or another and doing serious injury to-day in every one of our state universities and most of our public schools, and no matter how small an entrance it may have obtained, it has proved a wedge of contention and serious disturbance in every instance. More than that, it seriously checks the employment of the best and freest minds, and makes hypocrites and liars of men, who would otherwise prove true to their secret and honest convictions. Wherever present it checks the development of a free and honest manhood or womanhood in both instructors and students.

Every honest teacher in our state universities and public schools, and even those who have not the courage to be honest, knows that I but speak the simple truth.

Do not think that I am an enemy to the theologians or churches. They have their place and will have probably as long as humanity exists, unless that millennial condition is finally reached where all men of mature years will walk in complete unison with the laws of nature. But, with the highest education according to the best knowledge of to-day, theology has nothing to do. It is based on ignorance and its twin-sister, superstition. It deals in mystery, miracle and darkness, and fears and dreads the advancing light of the sun of true original research.

On the other hand, I have endeavored, and hope successfully, to show you that the country absolutely needs a place for the education of original investigators, and for the conduct of the lines of research which have been called to your attention, and which certainly promise, from past and present results, so many benefits to the people of this country and humanity at large.

The idea suggested in Mr. Edmund's bill is certainly not unworthy of the people of this country, and absolutely certain of contributing more lasting and profound benefits upon them than a hundred "Columbus Expositions," which are but fleeting things, and leave but few permanent benefits behind them. Hence, it would seem to be far better and sure to lead to grander results if Congress would provide for a number of schools or institutes for the education of original researches in every department of natural science, and especially to include the laboratories provided for in the bill already introduced, to be known as the

COLUMBIAN INSTITUTE OF ALLIED SCIENCES.

With this suggestion I close this paper, hoping that the questions brought therein to your attention will receive the earnest thought and endorsement they intrinsically deserve, though the manner of their presentation may not have been so acceptable to your minds.

THE Lincoln Institution has cared for 421 Indian boys and 236 girls since its foundation.

Society Notes.

GYNECOLOGICAL AND OBSTETRICAL
SOCIETY OF BALTIMORE, MD.*December Meeting.*

Vice-President, CHAS. H. RILEY, M.D., in the Chair,
WILLIAM S. GARDNER, M.D., Secretary.

DR. WM. E. MOSEBY related the following case:

Mrs. Maggie G., a light colored woman, about thirty years of age, twice married, had had two children by her first husband. Had suffered much during the past twelve years from dysmenorrhœa; had been unable to do ordinary work.

Examination showed the uterus to be retroflexed and firmly bound down, but the character of the adhesions could not be definitely made out. There was an irregular-shaped elastic mass in the position of either tube, diagnosed as cystic ovaries, together with chronically inflamed tubes. All the pelvic tissues were very sensitive to pressure. There was a deep, double laceration of the cervix, and a lacerated perineum with very lax vaginal wall, but only slight rectocele.

When the abdomen was opened, the mass on either side of the pelvis was found to be composed of a cystic ovary, and the corresponding tube firmly matted together by old organized adhesions, each mass being firmly bound down to the pelvic wall by numerous strong and many more recent adhesions. There were also adhesions to the omentum. The left ovary ruptured before it could be removed. The mass in the right side appeared to be a large hematosalpinx, but examination proved it to be an ovarian cyst into which blood had entered from a ruptured Graafian follicle. The adhesions behind the uterus were very broad, strong bands, and were pulled off the uterine wall. All possible care was used to secure the patient against hemorrhage, and the abdomen was douched out with hot boiled water until the return flow was practically colorless. A glass perforated drainage tube was introduced to the bottom of the cul-de sac, and the incision closed about it. The extreme difficulty of separating the adhesions and the douching prolonged the operation to about one and a half hours.

Although stimulants and artificial heat were pushed, no reaction could be obtained, the temperature never reaching ninety-five degrees, and the patient died about six hours after the operation, apparently from shock. At no time was there any discharge of blood or even bloody fluid from the drainage tube. Dr. N. G. Keirle, however, kindly examined the pelvic cavity post mortem, and reported that death was due to hemorrhage, the exact source of which could not be made out. Dr. J. Whitridge Williams kindly furnished the pathological report, which will be given below.

Dr. THOMAS OPIE exhibited a placenta that he had gotten a few hours before the meeting from a placenta prævia.

The patient was thirty-five years of age, and had borne one child previously. When he saw her first, she was blanched and exsanguious. The blood-flow began three days before with a loss of a quart, and continued with more or less rapidity up to the time of operation. Her confinement was not expected for two weeks. When first seen by him there were some rhythmical pains and some dilatation. The cervix was dilated with the fingers and cone of the hand;

the placenta was detached with a sweep of the forefinger around the cervix, the bag of waters was artificially ruptured and traction-rod forceps were applied. The child was delivered in fifteen minutes, without further loss of blood, the placenta coming away simultaneously with the birth of the child. Though the position was occiput posterior, there was no laceration of the perineum, and the child was unscathed. Both mother and child were left doing well.

Dr. Opie also exhibited a specimen of an ovarian tumor which he had recently removed. The tumor had developed into the epigastric region, and the abdomen was about as large as it would have been at the full term of pregnancy. It took two hours to break up the adhesions, which were very dense between the tumor and the intestines, and between the tumor and the omentum. The second tumor was taken from the pelvis. It was ovoidal in form, about seven inches in length, by five inches high and four inches thick. It was removed entire, and upon section it proved to be a deomaid growth. There was no history of peritonitis to account for the extensive adhesions. The patient had never had a day's discomfort, other than from the size of the cyst. She did not know until four months ago that she had a tumor. The material in the large cyst was colloid. Notwithstanding the extensive adhesions, the length of time consumed in breaking them up, and the injury resulting from the operation, the patient has made a good recovery, this being the seventeenth day after the operation.

DR. HOWARD KELLY.—The term colloid is often used in two senses. An incorrect use, describing the yellowish, more or less opalescent, thick, viscid material, often found in ovarian cysts; it is employed in such cases as more or less synonymous with gluey. The other use of the term is to describe a rare condition, in which the contents of the cyst are more like calf's-foot jelly and have a vitreous fracture, they are with great difficulty removed, clinging to everything. This latter is true colloid, and when found such tumors are of a suspiciously malignant character. We should limit the use of the word to the latter condition.

I wish to refer to two minor matters of interest suggested by this specimen of placenta prævia. The position which the placenta has occupied in the uterus can accurately be determined by the position of the opening in the membranes made by the passage of the child, inasmuch as the fundus uteri must of necessity be just opposite to this perforation. We can therefore, by reconstructing the membranes, see just in what part of the uterus the placenta lay. In one of my placenta prævia cases there was no hole at all in the membranes, as I had extracted the dead child through a perforation in the placenta. We can do still more than this in the way of a diagnosis with the membranes. By allowing them to be expelled untouched into the bed, and carefully observing their exact position, we can tell as well on which side of the uterus the placenta was attached.

The second point is that we may have placenta prævia hemorrhage without being able to detect a placental origin, owing to a low attachment of part of the placenta, near the internal os, below the contraction ring, but not over the hole of the cervical canal. The lower part of a placenta thus attached is separated by the opening up of the lower uterine segment.

DR. L. E. NEALE said, although Dr. Kelly had alluded to a point of some interest, it is of far more

practical importance to recognize placenta prævia prior to its expulsion, and as far as he knew, this could only be done with certainty by digital examination; partial placental separation and rupture of the membranes during labor, in cases of placenta prævia, was outlined by Mariceau as early as 1668, but was fully described by Puzas, in 1759; he saw nothing in the history of the present case, as related by Dr. Opie, that contra-indicated the method of Braxton Hicks, a method that up to the present time had given by far the best results, viz.: $4\frac{1}{2}$ per cent. maternal mortality. If this method, when practicable, could be performed earlier than delivery by any other method, and was not difficult and gave the best results, why not have applied it in the present case?

DR. WILMER BRINTON asked why Dr. Opie objected to the tampon in cases of placenta prævia; he thought no arbitrary law could be applied.

DR. OPIE said, in closing the discussion, that results of operative procedure depended largely upon the skill and familiarity of the operator with the special operation resorted to; in his first case of placenta prævia he had attended, he had turned and lost both mother and child; with rapid dilatation and forceps he feels that he has command of the situation, and having resorted to that method repeatedly, has gained greater skill and does better work. While Dr. Neale might do better by some other method, he is fully satisfied that he does best himself with the forceps. He is opposed to the use of the tampon because it conceals what is going on; it is not best to wait for pains; he is in favor of rapid dilatation and delivery in placenta prævia, in puerperal eclampsia and in abortion. To put in a tampon and go away is hazardous; the tampon is of very little help in hemorrhage.

DR. KELLY read a paper upon

THE EXAMINATION OF THE NORMAL PELVIC VISCERA,

describing various bimanual and trimanual methods of palpating the normal ovary.

DR. WM. B. CHUNN: When speaking of what should be found or can be found at an examination, it is necessary to consider the circumstances under which the examination is made. Office examinations are the most usual, and all the facilities are not usually at our command, and this circumstance should be specified and taken into account. Certain advantages in methods give certain advantages in results. Of course where the woman has no ovaries, or where the ovaries are not in the pelvic cavity, they cannot be palpated.

DR. HUNTER ROBB: I thoroughly agree with Dr. Kelly that the normal ovary can always be palpated under an anæsthetic, and also that in a large number of patients the ovary can be outlined without anæsthesia. Four years ago Dr. Kelly taught me the method of examining the ovary by invaginating the perineum, and I can testify to its utility. This lengthens out the examiner's finger and thus enables the practitioner who has a short finger to accomplish it with almost the same facility as a longer one. The corrugated tenaculum devised by Dr. Kelly, may be used to advantage with milli ovaries patients to define the uterus and its appendages still further. No one, of course, would think of using it in inflammatory conditions of the pelvic cavity.

DR. B. B. BROWNE said that he had listened with much pleasure to Dr. Kelly's paper, and congratulated him upon the admirable manner in which he had systematized these valuable methods of pelvic

examination—methods which most of us had been using in our gynecological practice for several years. He generally preferred the use of two fingers in the vagina, as he could thus make a more satisfactory examination of the tubes and ovaries than with one finger; in many cases a more accurate idea of the adhesions can be had by getting the finger above the ovary and fixing it between the finger and the spinal column; pulling down the uterus aids diagnosis very much.

DR. OPIE said that there were few objections to Dr. Kelly's paper, but it seemed that the elbow on the hip is incompatible with delicacy of touch; the law as expressed by Martin being: "The more lightly the parts are touched the easier the goal is reached, and the less the force that is employed the more distinctly things are felt." He thinks it a cruel sort of thing to drag an organ out of its position, and would like to know how much displacement can be made with the tenaculum without producing dangerous trouble, for example, cellulitis, metritis and injuries to the peritoneal tissue. He had met a number of cases in which he had not been able to make out the ovaries. Dr. A. Martin says he can palpate normal tubes, but Dr. Opie has never been able to reach that degree of perfection.

DR. NEALE referred to the possibility of tracing out the ureters through the anterior vaginal wall, as had been demonstrated to him by Dr. Kelly at the Hopkins Hospital clinic. He had no doubt that in a large majority of cases the normal ovary could be displaced out of its normal position and palpated or touched with ease through the vaginal walls. He believed that a great deal of difficulty in an ordinary gynecological examination was due to the fact of neglecting to empty the bladder or to employ the rectal touch.

DR. H. P. C. WILSON said there were a large number of women in whom he was sure he could not palpate the ovaries, and he was doubtful if any one could do so. The uterus is often found fixed in the pelvis as in a mass of putty, and no definite outlines can be made out; in other cases the abdominal walls are from two to four inches thick with fat, and in such cases he had failed to find the ovaries.

DR. J. WHITRIDGE WILLIAMS said that he could certainly feel the ovaries in four cases out of five, and that he had succeeded occasionally in finding the ureter.

DR. MOSEBY: The old teaching is that the ovaries cannot be palpated in their normal position. When an ovary can be found in an ordinary examination its location may fairly be considered as abnormal. If Dr. Kelly's idea, that all men who cannot make out normal ovaries should be thrown out of the specialty, should be enforced, a large number of experienced and thoroughly informed specialists would be excluded from practice. It is practically impossible to examine every patient thoroughly enough to make out the normal ovaries in office examinations. In dispensary and more especially in hospital practice, the case is very different.

DR. BROWNE thinks that the cases in which the ovaries cannot be felt are the abnormal cases; if the symptoms point to an examination of the ovaries they can be made out, but if necessary an anæsthetic should be given.

DR. KELLY, in closing the discussion, said that he examined every case coming to him, vulva to ovaries, making a special note of every important organ.

When the patient complains of persistent pelvic pain the examination is never considered complete

or the diagnosis sure, without a special note as to the condition of the ovaries. I have been asked about examining the ureters by palpation. They can be felt in almost all cases, being distinctly traced from the anterior part of the pelvis back to the side of the uterus. Pressing upon a diseased ureter causes a desire to pass water, often irresistible. I prove that this structure is a ureter by catheterizing it. The catheter can be felt through the vaginal wall outside the bladder, in the ureter, and the urine collected as it comes down from the kidney, drop by drop. The Fallopian tube can often, but not always be made out.

The amount of displacement of the uterus which can be made without injury is considerable. In normal cases it can easily and without harm or pain be brought down to the vaginal outlet. When there is fixation, gentle traction can be made until pain is felt. In these cases I use traction with the corrugated tenaculum, and then pushing up the fundus with the finger practice massage, stretching the adhesions. I am sure that the downward traction to the vulva without pain never does any harm.

DR. J. WHITRIDGE WILLIAMS' remarks upon the

PATHOLOGICAL SPECIMENS

submitted to him by Dr. Moseby, Dr. Wilson, and Dr. Opie.

The specimens submitted by Dr. Moseby are of considerable interest, and consist of the uterine appendages from both sides. The specimen from the left side consists of the Fallopian tube, ovary, and part of the broad ligament. The tube was completely occluded at its fimbriated end, but otherwise presenting nothing abnormal, except numerous small adhesions. It contained a very small amount of dirty, yellow fluid, consisting of column or ciliated epithelial cells and numerous disintegrated cells. The ovary was considerably torn and covered by very dense adhesions, while the broad ligament presented nothing of note. The specimen from the right side was an irregular mass of tissue about $5 \times 4 \times 1\frac{1}{2}$ cm., consisting of the tube and ovary imbedded in dense adhesions. At first glance the mass appeared to be composed of two parts, a large, solid anterior portion covered by dense adhesions, and posterior to it a cystic structure about $4 \times 1\frac{1}{2}$ cm. in size. This had a bluish color, thin wall, and was intimately connected with the rest of the mass. Imbedded in adhesions a piece of the ampulla end of the tube was found, which could be traced for about 4 cm. and then lost itself in the mass, and appeared to have no connection with the above mentioned cystic portion. The main portion of the mass, on section, was shown to be composed of ovarious tissue, which was covered and completely hidden from view by very dense adhesions. It contained two tolerably fresh corpora lutea about $1\frac{1}{2}$ cm. in diameter. The larger of these corpora lutea communicated by a small opening with the cystic portion above mentioned, which contained a thin, reddish, watery fluid, containing blood cells. On cutting open this cystic portion, its walls were found perfectly smooth, with several smaller cysts projecting into it. These varied in size up to 2 cm. in diameter, and were filled with a clear, watery fluid, and arose directly from the ovarian tissue. On examining the scrapings from the walls of these cysts, I found that they were lined by a layer of almost flat cuticular cells which were distinctly ciliated. These cysts could not have originated in the tube, as was readily demonstrated by their arrangement in relation to the larger cyst, and by the lining epithelium which was totally different from that of the tube. Their

smooth interior precluded the idea of a ciliated papillary cystoma; and the only probable thing for them to be, were dropsical Graafian follicles, which had been prevented from rupturing by the dense adhesions covering them, and so attained their large size. The fact that they were lined by ciliated epithelium is not at all opposed to this supposition; for cilia have previously been found in the dropsical Graafian follicle, as was shown by Von Velits, of Budapest, about a year ago, and as I found altogether independently of him, last spring. But as yet I have not made a sufficient number of observations to assert that all dropsical follicles are lined by ciliated epithelium. The blood in the large cyst in all probability came from the corpus luteum with which it was connected. The adhesions about the ovary were particularly dense and resisting. The diagnosis from the specimen in pelvic peritonitis, with adhesions binding down the adnexia on both sides, particularly the right side, with several very large dropsical Graafian follicles.

The specimen submitted to me by Dr. H. P. C. Wilson was a small myoma about 3 cm. in diameter, and bore on one surface a piece of vaginal mucous membrane the size of a two-cent piece. The tumor was submitted to me to decide whether its origin was from the anterior fornix or from the uterus itself. Sections made through the tumor and the vaginal mucous membrane readily showed it to be a myoma which was separated from the submucous tissue and epithelium by numerous bands of non-striated muscular tissue. From the presence of muscular fibres between the tumor and epithelium, I think we are justified in concluding that it was not of vaginal origin. Were it of vaginal origin it should arise from the submucous tissue and be immediately adjacent to the epithelium, and not separated from it, as it was in this case, by muscular tissue. Force is lent to this conclusion by the fact that vaginal fibroids are very rare indeed, and many of the reported cases, especially fibroids from the anterior fornix, had their origin in the anterior wall of the uterus, instead of the vagina.

The specimen submitted by Dr. Opie was a greatly hypertrophied posterior lip of the cervix, which measured 5 cm. in length, and 2 cm. at its broadest part. Microscopically it was found to consist of almost normal cervical tissue, with only a very slight increase of the connective tissue. Except at its cut surface, the entire mass was covered with the usual stratified epithelium.

Generally speaking, we may distinguish two forms of hypertrophy of the portio-vaginalis—follicular and diffuse or simple hypertrophy. The first form is due to an increase in number and size of the cervical glands, with frequent retention of their contents, and is quite frequent, but never attains a very great size, and is readily distinguished by its nodular appearance. The diffuse or simple form of hypertrophy is far more important. In this there is a general increase in all the elements that compose the cervix, though there may be a slight increase in the amount of connective tissue, as there was in this case.

DR. HOWARD A. KELLY read a paper on the

PALPATION OF THE NORMAL UTERINE APPENDAGES

(published in full in the February number of the *American Journal of Obstetrics*.) He stated that the normal uterine appendages could always be palpated. There are two avenues of approach, by the vagina and by the rectum, and three ways of utilizing these avenues. First, with one hand; second, with two hands, employed bimanually, either by vagina or

rectum; and third, the trimanual method, by vagina and by rectum.

First, the examination with one hand is unsatisfactory, and the ovary cannot even be felt unless abnormally displaced downward into the recto-uterine pouch.

Second, the success of the bimanual examination depends upon the downward pressure with the external hand displacing the abdominal walls in the direction of the ovary to be palpated, and thus affording a resistant plane against which the ovary can be felt by the internal hand. The internal hand must be used to invaginate the perineum, which is thus displaced upward into the pelvis. This invagination gives the examining finger, even though it be a short one, the necessary length. One, often even two inches is thus gained to the palpating finger. Care must be taken in making the pressure necessary to produce this invagination, not to stiffen all the muscles of the fore-arm, thus impairing the tactile sense.

The rectum is, of all others, the best avenue for approaching the structures lateral to the uterus, affording as it does a wide open channel throughout the whole length of the pelvis.

Where the structures cannot be reached at once through the rectum, they are brought within easy touch by bringing the uterus and ovaries into an *artificial retroposed* anteflexion, the mechanism of which was carefully described by diagrams.

Dr. Kelly had in this way palpated fibroid tumors on the posterior surface of the uterus, near the fundus, not as large as a pea.

Third, the trimanual examination is conducted either by the vagina or by the rectum and vagina, assisted with the hand above. The peculiarity of this method is an *artificial descensus uteri*. The uterus is grasped with a pair of bullet forceps, and drawn downward until the cervix is seen at the vaginal outlet, and, while an assistant holds it in this position, the gynecologist uses his hands bimanually. To obviate the employment of an assistant, Dr. Kelly has invented an instrument which he calls the corrugated tenaculum, flattened and roughened so that it can be readily held between the last phalanges of the third and fourth fingers and the ball of the thumb, while the index finger of the same hand, assisted by the abdominal hand above, is engaged in making a vaginal or rectal examination.

By one or the other of these methods the uterus, broad ligaments, and ovaries and tubes are within reach of a most thorough and searching examination, revealing at once the smallest abnormalities.

The Polyclinic.

JEFFERSON MEDICAL COLLEGE.

Reported by J. E. TAYLOR, M.D.

AT a clinic at the Jefferson Hospital, a case of *enlarged prostate* was presented to the class by Prof. Forbes. The patient, a man, aged sixty-five years, came for the relief of a sudden suppression of urine, accompanied by the usual symptoms due to this cause, viz., the enlarged gland. Upon introducing a sound an obstruction or a narrowing was detected just beyond the membranous portion of the urethra, which, after slow but persistent pressure, allowed the instrument to pass into the bladder. The walls of the bladder were perceived to be very much thickened, and thrown into rugæ. On making

a rectal examination, the lateral lobes of the prostate were perceived to be very much enlarged and indurated.

The treatment consisted at first in neutralizing the acidity of the urine by giving the patient flaxseed tea, to which there was added 10 grains of the iodide of potassium to the ounce, and keeping the stools in a semi-solid condition with:

R.—Sulphur,
Potassii bitart. āā f5j.
M.—S. A teaspoonful twice daily.

Also:

R.—Ext. ergotæ fluid. f5j.
Sig. Two to three times a day.

Likewise, for the purpose of acting on the portal circulation, the following prescription was ordered:

R.—Resinæ podophyl. gr. ¼.
Hydrargyri chlor. mitis. ij.
Sodii bicarb. " x.
M.—Sig. Given p. r. n.

Dr. J. C. Wilson presented a patient to the class who had had chorea. The patient had been treated with Fowler's solution, gtt. iij, gradually increased, with most marked improvement; the violent and irregular movements had almost entirely disappeared.

Prof. Parvin, in a case of vaginitis, advised the use of injections of creolin in proportion of f3ss-f5j to the pint of warm water, and injected two or three times daily; the hips being slightly elevated, or the use of a tampon in order to retain the fluid.

Dr. Morton recently presented at the clinic a case of a malignant growth of the tibia. The tumor was of large size, nodulated, indurated, purplish in color, of rapid growth, and firmly adherent to the bone. For its removal an amputation was done at the junction of the lower and middle third of the femur. For drainage, strands of catgut were used instead of a drainage-tube, for by this method it would not necessitate the opening up of the stump until union had taken place.

Dr. Stelwagon prescribed the following treatment in a case of syphilitic ulcer of the leg;

R.—Potassii iodidi. gr. v.
Hydrargyri biniodidi. ʒi.
Syr. sarsaparillæ f5j.
M.—S. Ter die.

And, as a local application, the following ointment:

R.—Ung. hydrargyri. f5ij.
Ung. adipis. f5ij.

The following plan of treatment was recommended in a case of goitre. Iodine internally, in the form of:

R.—Liq. iodi comp. gtt. v-x.
Sig. In water, ter die.

And locally:

R.—Tincturæ iodi. f3ss.
Lanolini. f5j.
Sig. To be rubbed in thoroughly to the affected part.

Prof. Bartholow advised the following to abort a bad cold:

R.—Pilocarpinæ hydrochlor. gr. ʒi.
Picrotoxini. ʒi.
M.—Ft. in pil.
Sig. Take every two hours.

The Times and Register

A Weekly Journal of Medicine and Surgery.

New York and Philadelphia, Jan. 24, 1891.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.
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THE TRUTH AT LAST.

AT last we have the whole truth before us regarding the lymph. From two directions light has been let into the dark corner. Virchow gives us the astounding intelligence that in the bodies of those dying from the lymph he has discovered fresh crops of tubercles; occurring under such conditions as to occasion the direct inference that the inoculations had themselves produced the new infection; and that living bacilli, or, more probably, spores, were to be found in the lymph employed.

This, however, should not be allowed to weigh too heavily against the lymph, as Koch has repeatedly and emphatically given warning against the danger involved in the use of this substance. It is unavoidable that in the preparation of such an agent, as yet but little understood, some difficulties should arise that future experience will avoid. Jenner was puzzled by the failure of his vaccinations, until he succeeded in tracing it to the use of virus weakened by age. If under Koch's keen eye some lymph should not be perfectly sterilized, what are we to expect when experimenters of high and low degree, the enterprising manufacturer, the wily substituter, *et id omne genus* undertake to supply the demand for lymph? Heaven save us!

Now as to the composition of the lymph. Koch tells us it is simply a product of the culture of the tubercle bacillus in a medium containing 40 per cent. of glycerine. The active agent has not been separated and analyzed.

We are now prepared to pronounce upon the claims of Dixon, as compared with those of Koch. Dixon made cultures of the tubercle bacillus, sterilized these cultures, and administered them to guinea-pigs and other animals, and proved that these animals thereby acquired a certain degree of immunity against tuberculosis. The theory that the tubercle bacillus produces an agent that is toxic to that bacillus originated with Dixon, and his experiments proved that there was truth in the theory. But Dixon did not

employ his lymph as a means of curing tuberculosis already existent; he did not consider his lymph an agent that could be usefully and safely employed on man, and this is his opinion to-day. This is not a matter for debate; it is history; and these things were published one year before Koch gave utterance to his first word on the subject. Now, what has Koch added to Dixon's work? The German has also prepared a culture, using a somewhat different medium, has sterilized the product, and has employed it as a means of treating tubercular diseases. In external tuberculosis he has had remarkable success; the permanency of which is still in doubt. In internal tuberculosis the results have been exceedingly questionable; death having undoubtedly been in some cases occasioned by the lymph; re-inoculation with living tubercle germs occurring occasionally, and attributable probably to imperfect sterilization of the lymph; while no single instance of indisputable cure has as yet been recorded. The conclusion that fair-minded men must reach is that Koch deserves great credit for his acuteness in recognizing the importance of Dixon's work; and for his boldness in extending the use of the lymph to the treatment of tuberculosis in man.

Again we are constrained to warn the public against the expectation of too much at the beginning. Great inventions rarely spring, Minerva-like, in full panoply, from the brain of the sire. The magnificent locomotives turned out by the Baldwin works grew from a firstling that would look rather insignificant besides these latest developments of the idea. The greatness of this new discovery lies in its possibilities.

Furthermore, we incline strongly to the view of Dixon, that in its present state the lymph is too dangerous to be employed in the human subject. When the active agent has been isolated, and we have at our disposal preparations whose freedom from living bacilli or spores is absolutely certain, we can recommend it to our patients with a clear conscience.

It will be seen that the views announced by THE TIMES AND REGISTER when Koch's announcement was first made, views that have been repeatedly published since, have been fully confirmed in every respect. We did not hold back the journal last week, in order to give the composition of Koch's lymph, and the confirmation of Dixon's claims, as these things would not have been news to our readers. All we have to regret is that our esteemed contemporaries did not see fit to aid us in the stand we made for the rights of an American investigator and the credit of American science.

POISONOUS DISINFECTANTS.—A sad case of suicide has just occurred at Bangor, county Down. A young married lady, named McDowell, it was shown at the inquest, simply went into a chemist's shop and asked for carbolic acid, and was given an eight-ounce bottle for the sum of sixpence. It must be evident that the restrictions upon the sale of poisons are likely to remain quite ineffectual so long as various poisons are openly sold as "disinfectants," "vermin destroyers," and the like.—*British Medical Journal*.

Annotations.

IN THE WEST INDIES AGAIN.

DR. WILLIAM F. HUTCHINSON, of Providence, R. I., author of the valuable series of sanitary papers on the tropics, which has been running in *THE TIMES AND REGISTER*, during the past year, and our New England editor, left last week on the steamer *Caribbee*, of the Quebec line, to complete his work in the West Indies. The Medical Press Company hopes to have Dr. Hutchinson's "West India Sanitary Guide" out in early season for next year, and it will be the only book of the kind in print.

We commend Dr. Hutchinson to the courtesies of the profession wherever he may go.

DR. BILLINGS' PAPER.

HAVING vindicated the claims of one good American, we desire to say a few words concerning another. It is not a matter of concern to us what Dr. Billings' creed may be, either in religion or in politics. Nor are we in the habit of judging a man by his personal peculiarities. Dr. Billings has suffered injustice enough to excuse a certain amount of irritability, even in a man less impatient than our fiery Chicago friend. These things are non-essentials. We look solely at the work, not the man. Dr. Billings was right in his contest concerning the swine plague. The great investigators in Germany have pronounced in his favor, and given him full credit for his excellent work. We take pleasure in presenting our readers with another paper by this brilliant though erratic genius, and commend it to their attention.

TREPHINING FOR EPILEPSY.

DR. J. R. TRIMBLE, of Baltimore, reports in the *Maryland Medical Journal* a case of trephining for traumatic epilepsy, the result of a blow received from a sharp axe. An incision, four inches long, was made from the occipital bone through the middle of the scar left by the blow. A depression of bone, one and a half inches long, was found, from the left side of which a button of bone was removed. The depressed bone was also removed with a rongeur. The patient recovered, and has had no attack since, except upon the occasion of two accidents.

Dr. J. Warren Achorn writes to the *Boston Medical and Surgical Journal* concerning some of the phenomena attending the injection of Koch's fluid in cases of tuberculosis in children. The cases which he reports are interesting in showing that where the disease was lupus, the lymph acted with considerable efficacy, whereas in cases of tuberculosis of a more advanced stage it seems to have been more difficult to obtain results.

THE VACANCY AT JEFFERSON.

THERE have been universal expressions of sympathy for the unfortunate Bartholow, and almost unlimited conjecture as to who will most likely be called to fill the place made vacant by his retirement.

The most generally named are Prof. S. O. L. Potter, of San Francisco; Dr. Hobart A. Hare, the talented editor of the *Medical News*, and author of the latest text-book on therapeutics; and Prof. Frank Wood-

bury, of the Medico-Chirurgical College. In point of high personal and professional character, there could be little choice between the gentlemen named. As the chair carries certain clinical duties, it would appear, from his superior opportunities, that, on the score of experience in practice and clinical teaching, Woodbury is the most available man. He has not written a text-book on therapeutics, but his contributions to the periodical literature of the subject have been numerous and creditable, and he has a familiarity with hospital work which no new man could soon acquire. With all things considered, Woodbury seems to be the man.—*Med. Progress.*

CRANIECTOMY FOR MICROCEPHALUS.

DR. W. W. KEEN, whose skill in surgery and ability in reporting his cases with brevity and clearness go hand-in-hand, sends us a report of a case of craniectomy for microcephalus. So far as it is possible to tell, this is the only operation of the kind performed in this country, only two having been performed in Europe, both times by Dr. Lannelongue, of Paris, whose operations and results Dr. Keen first generously cites.

Dr. Keen's own operation, which was performed on a child of four years and seven months, seems to have been thoroughly successful.

Concerning microcephalus the doctor tells us that we do not know its inherent cause. "Formerly," he says, "it was supposed to be due to premature ossification of the cranial sutures, but the examination of several skulls has shown that while this may sometimes be the case, yet in the cases examined there was no abnormality in the bony development of the cranium." It is rather due, Dr. Keen thinks, to a weakness in the growing power of the brain, to which there comes a slight resistance of the skull, which keeps pace in its growth with the brain. This operation is of course only applicable to children.

Letters to the Editor.

CORRECTION.

IN your issue for January 3, 1891, under the head of the Polyclinic, pages 8 and 9, there is attributed to me not only a differential diagnosis between chancre and chancroid, but also prescriptions for angina pectoris, mitral disease, chorea, diabetes, and diphtheria. With the exception of the first item not one of these belongs to me. In a former issue of your journal I was similarly credited by error with prescriptions in the Medico-Chirurgical clinic. Will you kindly correct both errors by printing this note, and also request your correspondent to be more accurate in the future? W. W. KEEN.

A NEW USE FOR SULFONAL-BAYER.

I HAD in my care a lady who was extremely nervous and troubled with insomnia and, naturally enough, gave her fifteen-grain doses of sulfonal-Bayer. She was doing well under this treatment when she awakened at 2 A. M. one morning, with a ferocious attack of asthma. She has had spasmodic asthma all her life, and had never found any thing to control it, not even safe doses of morphine or opium. Her husband, who was used to such experiences, determined to give her fifteen-grain doses of her sul-

fional as they always had it on hand, and to his surprise she was relieved in an hour and went to sleep. He now prides himself on having made a discovery, and to me it was an unheard-of thing. It is harmless, and I would like to hear of other experiences if any doctor has tried it. I may be disappointed, but I am anxiously awaiting another case of asthma in which to try it.

H. L. ROSENBERG, M.D.

MILTONSBURG, OHIO.

A. WILFORD HALL.

THERE is a man by the name of Dr. — Wilford Hall, of New York (I have forgotten the first letter in his name), who is selling a treatment for four dollars. The parties that buy have to sign a contract of honor not to divulge the treatment. Now if you know anything about it, let me hear from you, or if you know of any medical journal that has exposed it, you will confer a favor by giving the name of any such journal.

This Dr. (?) is also editor of a paper called *The Microcosm*.

E. T. W. HALL, M.D.

FREEMANSBURG, W. VA.

[The panacea recommended by Hall consists in pumping half a gallon or more of warm water into the bowels. The method is neither original, very useful, nor devoid of danger; the throwing of large quantities of fluid into the circulation (warm water is readily absorbed from the bowels) increases its bulk to an extent that might induce apoplexy, heart-failure or hemorrhages in certain cases. That in some cases this flushing of the colon proves useful in clearing out impacted or empouched masses is undeniable; but surely every physician knows when to order an enema, without paying four dollars to be told a parcel of lies about its superhuman efficacy.

—ED. T. & R.]

REMARKABLE MONSTROSITY.

HEREWITH hand you a report of a most remarkable monstrosity.

I was called November 15, 1890, to see Mrs. —, primipara, a fine, robust, healthy woman of twenty-one years of age, said to be suffering very much from colic. On arrival I found a case of abortion to contend with. I was told she was about seven months gone; she also said so. I made an examination, and at once thought, from the size of the uterus and condition of the surroundings that she was not that far gone. I found the waters had escaped, the os dilated only enough to introduce the tips of two fingers, when I felt something I knew not what; it would feel the consistency and shape of a small liver; then, on slight movement of the finger, I would feel something like intestines; then, the cord. I could not find a foot, hand, or head; and, upon the whole, I did not know what I had found. The pains were slight, and there was no hemorrhage. So I left to return to my house, a hundred yards distant. I returned in thirty minutes, and found the pains much stronger and more frequent. On examination I found the fetus well down into the vaginal canal, all doubled together and traveling rapidly, and was delivered at the vulva in a minute or two, with the head held close against, or rather within the vulva. Slipping the finger along the head, and into the vagina, I quickly detected something attached to the head and still connected within the uterus. I at once

decided to hold and not cut the fetus loose, as I did not know what else was behind, but by inserting the finger could feel the edge of the placenta within the womb. I administered a dose of fluid extract of ergot, and in a few minutes the after-birth and all came away. The fetus was dead, the skin slipping from the flesh; it was six inches and a half long and a female; from the general development I would judge it to be about a five months' child, and that it had been dead about two months. The fetus was attached to the placenta by two cords, one natural by the umbilicus, and one entering a large sack (which was ruptured during birth) on top of head, extending from the posterior fontanelle forward down over the frontal bone; the vessels of this second cord entered the nostrils. There was also entire absence of the left arm, absence of the left abdominal parietes and left cartilages up to the third rib, thus letting all the abdominal viscera outside of the body.

Through the courtesy of our photographer, Dr. J. B. Foster, I am enabled to enclose you a photograph of the fetus. I cannot assign any cause or reason for this abnormal development. The lady says she saw some monkeys here last summer, but that she was not at all scared at them, and rather enjoyed seeing them than otherwise—hence, could not be charged up to fright at the monkeys.

I learn that about the time the fetus must have died, the lady went to her father's, and suddenly and unexpectedly came upon a cow just in the act of dropping her calf. This, she said, did frighten her somewhat, but she thought no more of it, until recently, and mentioned it some time since her miscarriage. Now, I would be glad to hear some physiologist's explanation of this freak of nature.

Allow me to acknowledge my pleasure and enjoyment, and, I am sure, profit, in reading your weekly journal—and hoping you will continue to Register up with the Times during the new year.

S. H. PRICE, M.D.

MONTVALE, VA.

Book Notices.

A COMPEND OF DISEASES OF CHILDREN. Especially adapted for the Use of Medical Students. By MARCUS P. HATFIELD, A.M., M.D., Professor in Chicago Medical College. Philadelphia: P. Blakiston, Son & Co. 1890. Cloth, 16 mo., pp. 182. Price, \$1.00.

The nineteenth century is the age of manuals, compends, and digests. Where our fathers read, we "take an interest" in a subject; where they excavated, we scratch the surface with our spades; and that which cost them years of thought and labor has been comprehended in five minutes, and accomplished by the aid of machinery in one, by us. One subject was enough for most of them to make his life-work; we, emulating Bacon's ambition, "have taken all knowledge to be our province."

And to us, therefore, "Blakiston's ? Quiz-Compend," of which the volume before us is one, come as a beacon to guide the overworked student through the mazes of medical study. This book is admirably done. The author has proved himself a master of the art of condensation, a practical man in all the details of the arrangement of his subject. To have treated the subject of diseases incident to childhood in the space of 182 pages, 16 mo., and to be neither misty nor incomprehensible because of brevity, is to have attained to a very high degree in the field of medical literature. But Dr. Hatfield rises even higher than

this: he is positively interesting. Sacrificing nothing essential, in his effort to be brief, he has never allowed himself to become dry or statistical. Many interesting customs and practices receive a notice, and help at once to enliven the style and illustrate the point at issue. When, for instance, he tells us that "in India, Africa, and certain parts of Russia, it is considered little short of murder to give a baby an entire bath before it is a year old, and seldom thereafter," and then goes on to say that "civilized children should be bathed once daily." We get not only an interesting historical fact, and a shrewd criticism thereon, but we are also let into the author's mind and given a view of his estimate of India and Russia.

The book cannot fail to be valuable to students as a ready-reference book, the result of the observations and practice of a specialist upon a subject too often lightly passed over, but of which the importance cannot be doubted. Dr. Hatfield deserves praise for his valuable book.

The Medical Digest.

FRENCH NOTES.

BY A. E. ROUSSEL, M.D.

A PROLONGED FORM OF ACUTE COCAINISM.—M. Hallopeau reports an interesting case where an injection of $\frac{1}{4}$ -grain of hydrochlorate of cocaine in the neighborhood of a decayed tooth was followed by prolonged symptoms of acute cocaineism.

He arrives at the following conclusions:

1. A single hypodermic injection of cocaine may give rise not only to immediate symptoms of a severe type, but also to prolonged troubles of a painful character.

2. These symptoms much resemble those noticed shortly after an injection. They particularly consist of a persistent cephalalgia, accompanied by profound malaise, insomnia, and prostration, accompanied by vertigo, as well as cerebral excitation, which manifests itself by loquacity and great agitation.

3. Small doses of the medicament may be sufficient to cause the above.

4. Their duration may be of several months.

5. They are especially observed in patients of an excitable nervous system.

6. They may be attributed to an elective action of the poison on certain nervous centers.

—*Le Bulletin Médical.*

PRESENCE OF LEAD IN SELTZER WATER (M. Moisseau).—Seltzer water often contains traces of lead. Vincent and Hardy have demonstrated that a siphon of seltzer water often contains a demi-milligramme of lead. M. Gautier has found about the same doses. The author has examined siphons kept for a long time, and found one and a half milligrammes of lead to the siphon. The head of the siphon sometimes contained 40 per 100 of lead. To explain this dissolution of lead he had to admit that oxide of lead was formed in the apparatus before it was filled. The water charged with carbonic acid intriguently dissolves the oxide of lead.

—*La Médecine Moderne.*

PEREIRENE.—Quinine, when employed in intermittent fever, has a bad effect when the patient presents symptoms of cardiac weakness. But when added to pereirene, this objection is done away with, and the combination often manifests advantages.

We prescribe:

R.—Sulphate of quinine,
Pereirene ãã 7 grains.

We obtain an effect equal to that which is produced by the administration of 15 grains of sulphate of quinine, but without any modification of the circulation.

SULFHYDRATE OF ZINC IN DERMATOLOGY.—Barduzzi brings forward this medicament in all cutaneous diseases when the indications are to excite to activity the functions of the skin, as, for example, in chronic eczema or in psoriasis. It is prescribed at the same time both internally and externally. The following are the formulæ employed:

R.—Sulfhydrate of zinc..... 7 grains.
Extract of gentian, q. s.

For 50 pills.

Take 5 to 15 a day.

According to the author, the activity of this medication is due to the sulphur.

R.—Sulfhydrate of zinc..... 15 grains.
Lanolin 60 "
Lard 90 "

For a pomade.

—*Le Bulletin Médical.*

ACETANILIDE IN THE TREATMENT OF ULCERATED HARD AND SOFT CHANCRES.—K. P. Basilevitch reports three cases of ulcerated chancres (one hard and two soft chancres) which, when powdered with acetanilide were cured in a short time.

Acetanilide in this case is superior to iodoform, because it is inodorous, and because even in large doses it is never followed by toxic symptoms. Besides which, it is much cheaper than iodoform.

TREATMENT OF DIPHTHERIA (J. Neumann).—The patient first takes a purgative dose of calomel. After the action of this medicament is produced, the pharyno-nasal mucous membrane is carefully washed with lime water, after which the following mixture is applied:

R.—Metallic iodine..... 5 grains.
Alcohol..... 300 "
Chloroform..... 30 "

Mix. External use.

At the end of six hours another application is made. Then, two hours afterward, an energetic transpiration is provoked by the application of cold water to the entire body, followed by heavy coverings and the ingestion of hot tea with 15 to 45 grains of salicylate of soda. The patient is allowed to transpire for two or three hours; he is then rubbed dry, and stimulants are administered. The next day we content ourselves with simply making one application of the iodine solution; the day after we proceed exactly as on the first day, etc.

APPLICATION FOR THE RAPID DISSOLUTION OF THE FALSE DIPHTHERITIC MEMBRANES (Caldevell).—

R.—Papoid 10 parts.
Hydronephthol 3 grains.
Hydrochloric acid..... 15 drops.
Distilled water 120 parts.
Glycerine..... 11 "

To be used in atomizer every half hour.

POWDER FOR SCROFULOUS RHINITIS (Cozzolino).—

R.—Sulphophenate of zinc..... 5 grains.
Salicylate of bismuth..... 60 "
Iodol..... 5 "
Tannate of zinc..... 30 "
Pulverized chalk 150 "

Apply locally.

—*La Médecine Moderne.*

Medical News and Miscellany.

THE Duke of Bedford's body has been cremated.

SURGEON H. M. MARTIN, U. S. N., died in Philadelphia last week. He had been on the retired list but a few months.

TUBERCULOUS patients in Paris are being treated by the transfusion of goats' blood; that animal not being liable to tuberculosis.

DR. JACOB H. GALLINGER, a prominent Republican of New Hampshire, was nominated by the Republican caucus as United States Senator to succeed Senator Blair.

SIX young men from Siam are on their way to America, where they are to be educated as physicians. Their preliminary studies are to be conducted at Westminster College.

DR. CASPAR MORRIS has been appointed Chief Medical Examiner of the Reading Railroad Relief Association, to replace Dr. W. H. Mahler, who has resigned to enter the insurance business.

DR. JOSHUA M. VAN COTT, assistant pathologist of the Long Island College Hospital, and histologist of the Hoagland Laboratory, has started for Berlin to make a special study of the Koch lymph.

THE Alumni Association of the Medico-Chirurgical College, of Philadelphia, held its semi-monthly meeting on Friday, January 16, at the College.

Dr. Henry Fisher read a paper entitled, Empiricism in Medicine.

SENATOR SAWYER is said to have reduced his weight sixty five pounds in six months by eating four or five times a day—as often as he desires to eat, in fact—but taking as little food as possible to assuage the pangs of hunger. He also avoids fluids.

At a meeting of Class '91, Jefferson Medical College, the following officers were elected for the year: Matt. M. Smith, Austin, Tex., President; R. W. Stevens, Pa., Vice-President; R. G. Barckley, Secretary, and H. T. Underwood, Treasurer. This is the first time in the history of the college that a Southern student has been President.

COURTENAY DE KALB, writing to the *Nation* from Eastern Peru, says: "Cattle are raised here solely for beef, milk never being used. It appears that in the tropics milk is even more likely to be infected with the bacillus tuberculosis than in the north, and so many cases of consumption have been traced to its use that the entire population, with scarcely a single exception, leaves it absolutely alone."

DR. JOSEPH PARRISH, aged seventy three, of Burlington, N. J., died at his home on Locust avenue, January 15. His career was eventful. He was a son of the celebrated Dr. Joseph Parrish, of Philadelphia, and graduated at the University of Pennsylvania in 1844. He organized the Pennsylvania Sanitarium for the Cure of the Inebriates, located at Media, and was also at the head of a similar institution in Baltimore.

He was the founder of the American Association for the Study and Cure of Inebriety, established in 1870, which awakened interest in England, and in 1872 a committee of the Houses of Parliament was appointed to investigate the subject, and Dr. Parrish, and the late Dr. Dodge, of New York, were summoned to appear and testify as to their knowledge of the treatment of inebriates.

BROOKLYN has a Chinese Hospital at 45 Hicks street. Dr. J. S. Thoms is the resident physician.

THE "BLACK DEATH" IN SIBERIA.—The terrible scourge known as "black death," has reached the city of Tobolsk, the capital of West Siberia. The whole of Asiatic Russia from Samarkand to the mouth of Obi, is suffering from the scourge. Thousands are dying at Obdorsk, near the mouth of the Obi, owing to the lack of physicians. It seems almost hopeless to try and check the spread of the fearful disease.

SECOND conversational meeting of the Jefferson Medical College Alumni was held on Thursday, January 22, 1891, at 8 P. M., at the College building, Tenth and Sansom streets.

The paper of the evening was by Dr. Joseph W. Hearn, on The Treatment of Inflammatory Conditions Affecting the Lymphatic Glands of the Neck. The discussion was opened by Prof. W. W. Keen, Drs. F. P. Henry, Ross R. Bunting, and W. M. L. Coplin.

A collation was given after the scientific business had been transacted.

AMERICAN ASSOCIATION FOR THE STUDY OF INEBRIETY.—On December 10, 1890, a paper was read by Dr. T. D. Crothers, on Alcoholic Inebriety and Life Insurance, and one by myself on Opium Addiction as Related to Life Insurance.

On January 7, 1891, papers on Alcohol were presented by Drs. Kemp, of Brooklyn; Hope, of New York, and Wright, of Bellefontaine, Ohio.

At the February meeting, papers will be read on Inebriety: Its Etiology and History.

J. B. MATTISON.

At the annual meeting of the Corporators of the Philadelphia Polyclinic, held on January 12, 1891, the following new members were elected:

John L. Wilson, James Hay, James P. Scott, Mrs. Thomas A. Scott, Mrs. Wm. Waldorf Astor, Roland B. Whitridge, M.D., Mrs. Matthew Baird, Mrs. Elizabeth H. Farnum, Dr. Thomas S. K. Morton, George W. Childs, Mrs. Moses Brown, H. H. Houston, Mrs. Isaac B. Thorn, Rev. Wm. Neilson McVickar.

At the same meeting the Board of Trustees for 1891 was elected, as follows:

Charles K. Mills, Henry Leffmann, John B. Roberts, J. Henry C. Simes, Charles B. Baeder, Caleb C. Roberts, Rev. G. Woolsey Hodge, Hon. Wm. N. Ashman, H. H. Wilson, Thos. S. K. Morton, Rev. Wm. Neilson McVickar, H. Augustus Wilson.

E. B. TREAT, publisher, New York, has in press, for early publication, the ninth yearly issue of the "International Medical Annual."

Its corps of thirty-seven editors—specialists in their respective departments, comprising the brightest and best American, English, and French authors—will vie with previous issues in making it even more popular and of more practical value to the medical profession.

Its index of new remedies and dictionary of new treatment, epitomized in one ready reference volume at the low price of \$2.75, make it a desirable investment for the busy practitioner, student, and chemist.

"Lectures on Diabetes." By Robert Saundby, M. D., Edinburgh. 300 8vo pages, \$2.75. In press.

"Sexual Neurasthenia." By G. M. Beard, M.D., and A. D. Rockwell, M.D. Third edition, enlarged, \$2.75. In press.

Mr. Treat's "Don't Forget It Calendar" is one of the good things one should not be without.

The Times and Register.

Vol. XXII, No. 5. NEW YORK AND PHILADELPHIA, JANUARY 31, 1891. Whole No. 647.

	PAGE		PAGE		PAGE	
ORIGINAL ARTICLES.		THE MEDICAL DIGEST.				
PEROXIDE OF HYDROGEN IN GYNECOLOGY AND IN OBSTETRICS. By Egbert H. Grandin, M.D.	85	To Preserve Cutting Edges. <i>Miller</i>	91	On the Prevention of Laceration of the Female Perineum. <i>Duke</i>	98	
THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson M.D.	86	Post Grippe Otitis Media. <i>Stirling</i>	95	Certainty in the Diagnosis of Tuberculosis. <i>Potter</i>	98	
SOCIETY NOTES.		FRENCH NOTES. <i>Roussel</i>		Remarks on Diplococcus Pneumoniae of Fraenkel Weichselbaum. <i>Holt and Prudden</i>		98
ALLEGHENY COUNTY MEDICAL SOCIETY. . . .	91	Treatment of Epilepsy by the Continuous Current. <i>Niemeyer</i>	95	The Deficiency of Native-born Americans. <i>Brit. Med. Jour.</i>		99
Albuminuria After Typhoid Fever. <i>Batlen</i>	91	On the Increase of the Red Corpuscles of the Blood in the Inhabitants of High Altitudes. <i>Viault</i>	96	An Improved Battery. <i>Sattler</i>		99
EDITORIALS.		Physiological Action of Morphine on the Cat. <i>Guinard</i>		Multiple Neuritis. <i>Finn</i>		99
THE IRREGULARS' BLUFF	92	A Case of Cheyne-Stokes Respiration with Complete Arrest of the Heart During Respiratory Action. <i>Hallopeau</i>		Aspiration of Bladder by the Dieulafoy Method. <i>Whitlencar</i>		99
THE TREATMENT OF TUBERCULOSIS	93	Diseases Treated at the Charité in 1890 by the Methods Derived from Hypnotism. <i>Luy</i>		California and Its Winter Resorts. <i>Shinn</i>		100
ANNOTATIONS.		Injection of Salicylate of Mercury in Gonorrhoea. <i>Sillermintz</i>		The Curve of Health. <i>Holmes</i>		100
"Professional Experts"	94	Creoline in the Treatment of Follicular Pharyngitis. <i>Ipzig</i>		Anæmia. <i>Mackenzie</i>		100
Yellow Fever	94	Mastoid Operation and Its Value. <i>Richards</i>		Cinder Tea. <i>Cadogan Masterman</i>		100
Our Postal Service	94	Another Treatment of Asthma. <i>Pearse</i>		Liq. Hyd. Perchlor. in Diphtheria. <i>Coward</i>		101
LETTERS TO THE EDITOR.		Treatment of Cases of Toxic Hysteria. <i>Saundby</i>		Treatment of Diphtheria. <i>Sympton</i>		101
American Electro-therapeutic Association. <i>Walling</i>	94	The Removal of the Uterus for Cancer. <i>Keith</i>		Snake Venom and Its Antidotes. <i>Brunton</i>		101
The J. M. DaCosta Society. <i>Daud</i>	94	Notes from Berlin Clinics. <i>Wilson</i>		Filaria Sanguinis Homiuis Major and Minor. <i>Manson</i>		102
BOOK NOTICES.		Methyl-violet or Pyoxtanin. <i>Tiffany</i>		The Index Medicus. <i>Medical Record</i>		102
Diseases of the Eye. <i>Nettleship</i>	95			MEDICAL NEWS AND MISCELLANY, 103		
The Practical Application of Electricity in Medicine and Surgery. <i>St. Clair</i>	95			ARMY, NAVY, AND MARINE HOSPITAL SERVICE		106
				NOTES AND ITEMS		iv, xli

Original Articles.

PEROXIDE OF HYDROGEN IN GYNECOLOGY AND IN OBSTETRICS.

By EGBERT H. GRANDIN, M.D.,
Obstetric Surgeon New York Maternity Hospital, Visiting Obstetrician
New York Infant Asylum, etc.

MODERN methods of antisepsis enable us in the vast proportion of cases to prevent suppuration. The problem remaining is how arrest it when present, or abort it when imminent.

The virtues of peroxide of hydrogen (H₂O₂) in general surgical practice have recently been heralded by Dr. Robert T. Morris, of this city, in the columns of THE TIMES AND REGISTER. The object of the writer is to exemplify his personal experience with this agent, through the brief record of a few cases in which he has tested it.

CASE I. *Sub-mammary abscess*.—About one year ago I was consulted by a Mrs. G. She was nursing a two and a half months' puny infant, notwithstanding the fact that the right mamma was fairly riddled with sinuses, and the left presented to my touch faint fluctuation. Her previous medical attendant had exhausted all routine measures, and yet, as she expressed it, "she was going from bad to worse." She had hectic fever and other symptoms of sepsis; her appearance suggested the absolute necessity of rapid action.

I at once weaned the child, of course; made a deep incision in the left mamma, giving exit to a mass of fetid pus, washed out the cavity with bichloride (1-1,000), and packed it with gauze. I thoroughly curetted the sinuses in the right mamma, irrigated

and packed them similarly. In a few days I had control of the sepsis, but the pyogenic membrane and its product resisted all my efforts. In despair, and without much hope of success, I washed out the cavities with peroxide of hydrogen (half diluted with glycerine), and applied a compression gauze bandage. At the end of ten days the abscesses were cured.

CASE II. *Suppurating pelvic hematocoele*.—This case was seen in consultation. The patient was a young prostitute, and the only etiological cause I could determine was copulation during menstruation. The tumor bulged in the retro-uterine pouch, and I treated it as follows: Under antiseptic irrigation I aspirated along the finger as a guide, and obtained a mixture of blood and pus. Using the aspirator meddle as a director, I enlarged the opening transversely, sufficiently to admit a Palmer dilator. Inserting this I divulsed, curetted the cavity—which measured fully three inches square—and washed it out with equal parts compound tincture of iodine and water. I next inserted a flange-rubber drain tube. The cavity was washed out daily through this tube with two and one-half per cent. carbolic, but contrary to my experience with similar cases, it had not contracted much at the end of a week, and was still secreting pus. I then inserted a small Chamberlain glass uterine tube, and distended the cavity with undiluted peroxide of hydrogen. This checked suppuration at once, and when the patient was seen three weeks thereafter, an induration in the posterior vaginal cul-de-sac was the only remnant of the hematocoele.

CASE III. *Puerperal septic endometritis*.—Seen in consultation. Fifth day post-partum. Patient had fetid lochia, tenderness over uterus, rise of temperature, rapid pulse. A number of intra-uterine bichloride douches had been administered before I

saw the case. Having differentiated extra-uterine source of the general sepsis, I curetted the cavity of the uterus, according to the method I have repeatedly described and advocated, removing a mass of degenerated decidua matter, and then, instead of applying pure phenic acid to the cavity, and irrigating it with iodine and water, I washed it out through a Chamberlain glass tube with a pint of peroxide of hydrogen (undiluted). The local sepsis was thus at once checked; the patient made a rapid convalescence under the means which suggest themselves for meeting the sepsis already in the system.

These cases typify instances in which the peroxide of hydrogen will be found useful by the gynecologist and obstetrician. As opportunity offers I propose to resort to this agent in vaginitis, urethritis, and purulent cystitis. Further, and in this direction I am as yet only experimenting, I am hopeful that in this agent we will find we possess a means which will enable us to avoid laparotomy in certain instances of pyosalpinx. My conclusions on this point, however, it would be premature to state.

My experience thus far with the peroxide of hydrogen justifies the statement that it is absolutely harmless, and that it is at the same time the most efficient of all the agents at present at our disposal for preventing the ravages which uncontrolled suppuration is capable of causing.

36 EAST 58TH STREET.

THE WEST INDIES AS A SANITARIUM.

BY WILLIAM F. HUTCHINSON, M.D.

CHAPTER IX.

THE SPANISH MAIN.

THERE is but one way to reach the mainland of Venezuela from Trinidad, and so on down the Main, if the trip up the Orinoco be excepted; and as this in no way concerns us as seeking sanitarians, it will be spoken of later.

There are several lines of steamers that carry passengers to the Venezuelan ports, but the only one that is worth counting is the Royal Mail. Besides the occasional ships of the transatlantic fleet that run across, there is a regular service of what are called intercolonial boats, that are reliable, moderately fast, with a fair table and comfortable cabins. The only drawback has been the high rates they have charged, averaging ten dollars a day for short trips, and not much less for longer ones. But this season there is a change. Cook & Son have arranged tours starting from New York, following down the islands to Trinidad, by the steamers of the Quebec line, thence to La Guayra by the Royal Mail, and thence by the superb ships of the Red D Line home, via Curacao. The trip may be reversed, as much time as needed taken at each island, and the whole at a remarkably low figure.

The time actually essential to do the journey properly, and not be too hurried, is six weeks; but it may be done in four. For most of us nervous Americans, this is a most delightful tour; embracing, as it does, a great variety of sea and shore, with frequent changes of scene, of people, language and food, and everywhere complete rest.

After arriving at Trinidad, where a rest of a few days will probably be enforced—for it is a rare thing for steamers of different lines to connect closely—the tourist who proposes to continue by the Main will do well if he goes to the office of the Royal Mail Company, at Port-of-Spain, and secures a comfortable cabin.

These steamers are built upon a totally different plan from American vessels. The cabins are large, commodious and scarcely furnished at all. The best of them are forward, where the cool breezes, which the steamer always faces, find their way to the sleeper in fresh purity, while occupants of the after state-rooms must manage to do with their atmosphere as it comes to them after playing about awhile among machinery in the boilers. As there is always a great demand for the few state-rooms forward the wisdom of my advice will be seen.

Another hint. Avoid taking passage by what are called the freight boats, which do not have anything like as comfortable accommodations as the others. The run across to Puerto Cabello is a matter of a couple of days pleasure sailing, and while there sufficient time is given to visit the pretty suburbs of Borburata and Sant Esteban, where the worthy merchants of the city live in their quiet country houses, beneath the shadow of great mountains bearing primeval forests, where tigers and other wild beasts dwell.

The little river of Sant Esteban sings merrily along over pebbles at the bottom of a cool, dark ravine, eddying now and then into pools that are famous bathing places in the early morning.

About the streets of Borburata may be found gateways, with great walls, that open into gentlemen's gardens containing the most luxuriant wealth of tropical foliage that only dreams of these sunny lands have so far produced.

The market, too, is well worthy a visit. One finds there his first specimen of the famous Cassava bread, in flat cakes three feet across and a quarter of an inch thick. One carries home a loaf of bread much as one would a cart-wheel.

In the village of Sant Esteban are to be found specimens of feather flowers of exquisite colors and in excellent taste made by native ladies. These may be purchased at reasonable prices, and while quite as good as those of Brazil, are much cheaper. Other curios or things to be bought there are none.

In this seaport town of the Spanish Main it is needful to be exceedingly cautious about nocturnal exposure. You may go about as much as you choose in the daytime, provided you are protected from direct sun rays, but night air is dangerous. It is much better to follow the example of the people who live there, and stay in-doors after sunset, and in bed after nine o'clock.

One may rise long before the sun, and find in the delicious morning air, with its cool freshness and novel rich perfumes, an ample recompense for unwonted labor in getting up so early.

From Puerto Cabello to La Guayra is six hours' sail, and is usually managed in the night, so as to give the ships all of daylight possible to load and unload cargo; but at La Guayra, which is the sea-port for Caraccas, we must pause awhile, for it is within a mile of the Newport of Venezuela, pretty, little Macuto, and, of course, we must go and see the swells of this country, who flock to the seashore in hot weather as do those of every land. A cab will drive us out and back for two dollars, and wait our pleasure there. There is a railway going part way up, but not available for general use.

At Macuto are many handsome residences, the best of them, when I was there last, being that of the President, Gen. Guzman Blanco. The streets are more peculiarly South American than in any town yet reached; narrow, well-shaded, bordered by single-storied houses with red tiled roofs. Glass windows

there are none, and when the rainy season comes people close heavy wooden shutters, and thus defy the storm.

The bathing-beach at Macuto is not an especially attractive one, for sharks of the man-eating variety are so numerous that it has been found necessary to build a protection against them where people go into the water. This is a handsome round tower, some fifty feet out in the water, with separate divisions for men and women; and strangers are welcome to bathe upon payment of a small fee for towels.

From La Guayra to Caraccas, which is the main point that we have come so far to visit, there is now an excellent railroad, thanks to the enterprise and public spirit of President Guzman Blanco. It climbs 3,400 feet in a distance of six miles, winding backward and forward in crevices in the rocks that have been dug with extreme difficulty, at great cost of treasure and life. On the way up we passed through two or three dense clouds of locusts, which were sufficiently numerous to give the impression of a cloud as they flew between ourselves and the sun. When they alighted on a tree it became instantly invisible, and there was nothing to be seen except a mass of these insects clinging to each other, hundreds deep, making a form of locusts somewhat resembling the original shape of the tree.

Sometimes, it is said, they alight upon the railway, impeding traffic, their bodies being so full of oil that when crushed by the wheels of the train the rails become so greased as to prevent progress.

Now and then the track skirts so closely the edge of a tremendous precipice that one may look directly from the car windows into the abyss, thousands of feet deep, at the bottom of which is a green plateau with moving specks here and there, which a glass resolves into men and moving teams.

The capital city of Venezuela lies in a basin surrounded by mountains, climbing up some seven thousand feet still higher than the plain on which it is built. It is laid out, this city of the Incas, upon a beautiful plain as level as a floor, richly watered by clear mountain streams that come foaming down the steep, and supplied with the latest adjuncts of civilization in the way of electric lights, horse cars, etc.

There are two excellent hotels, the Hotel America and a new one whose name I have not yet learned, both having English-speaking waiters, and charging moderate prices, say from two to three dollars a day. These are the only hotels that I know of in all South America where there are modern conveniences, as we call them.

The temperature of this plateau I found delightful, quite cool enough at night for double blankets on the bed, and a temperature of from 55° to 58°. At mid-day there was a rise, never exceeding 15°, with an average all day long of 68° F. So here, close to the equator, I found a temperate zone—one of exceedingly slight variation, all within a comfortable limit.

As might be expected, in such an ideal climate, there are no epidemic forms of disease. Occasionally, yellow fever makes its appearance, brought by pilgrims from the coast; but it is many years since an epidemic thereof has frightened the people. Colds and bronchial affections are probably common, not often, however, becoming dangerous. People suffering from one class of diseases must be cautioned against coming hither. These are affections of the heart, whether organic or functional. The great elevation of this mountain city produces a rarefaction of the air which is harmful to invalids of this class.

Even well people find themselves dizzy and confused in mind during the first few days of their stay at Caraccas. Respiration is nearly doubled in rapidity, and the pulse-beat increases by 35 or 40 per cent. The American minister told me that it took him nearly a month to recover from this condition. Even then, after he had been a year in the city, he still suffered occasionally from ringing in the ears and slight dizziness. Therefore, it is advisable for the stranger within the gates to avoid all violent exercise, and especially the use of stimulants. This latter is somewhat difficult advice to follow, for the hospitable people of the town are in the habit of drinking ardent spirits freely, and the first thing done to show courtesy to visitors is the production of an unlimited supply of drinks of all kinds.

There is probably no place in the world where cabs are so plentiful and cheap. Every one drives, from the President, in his elegant landau, followed by a glittering bodyguard of horsemen, to the cook going to market—all go on wheels. The price for a coach that will carry four is from two to three dollars a half-day, while single trips in an ordinary cab about town may be enjoyed for eight cents.

Here artists will find in the beautiful scenery surrounding the city, a variety of subjects, which, taken with their novelty, will give ample occupation for any length of time. No more beautiful view exists than the one overlooking the road by which the Incas entered the town, with its beautiful double row of palms on either side of the bridge that crosses the river. It is unsurpassed in my memory of many lands.

If a tourist can so time his visit as to arrive in Caraccas a few days before Shrove Tuesday, he will be in time to enter into the sports of the carnival, for which every Carayuená is longing for weeks before it comes.

That morning begins with a free parade of all the city hacks and cabs, headed by the Mayor and a brass band. The latter is usually in sections, which are sometimes a block or two apart, and by no means continue the same tune throughout; but this in no way interferes with the fun.

From the cathedral down the street called the Carnival, there is a steady stream of carriages, loaded with bushels of small sweetmeats, miniature biscuits, flowers, and an endless variety of light missiles.

The wide, Moorish windows are filled to the bars with pretty girls, who promptly open fire on the carriages as they pass, and a battle royal ensues. From every balcony, from windows, and from passers on the street, there rains a steady stream of everything that can be thrown, and our carriage speedily began to look like a burned-out confectionery shop.

Venezuela draws its main revenue and its chief support from its coffee culture, and a day or two cannot be spent more pleasantly than in studying the culture of this fragrant berry at some friend's estate.

Every one in this country talks coffee, raises coffee, deals in coffee, or owns coffee; but not a single soul appears to know how to make a cup of the beverage fit to drink, as Americans like it. It is burned quite black, thereby losing all aroma, and served as strong as it can be made, in which condition it is a nerve stimulant, more potent than brandy, and its excessive constant use by all classes goes far to explain the nervous condition of the natives. Visitors are cautioned against following their example.

As a matter of course, at such an elevation in this tropical latitude, relative humidity is very great, and it is not an easy task to care for one's clothes. A pair of shoes that had not been worn for two or three days looked as if a garden had been started in them; and a lady friend told me of a silk costume that was ruined by mildew, because she left it unaired two days after a party. In such a climate vegetation runs riot.

In Caraccas valley alone there are over sixty varieties of orchids, and innumerable flowers and plants unknown to us; many of great beauty, others of deadly virulence; and the farina is correspondingly rich.

In the territory between La Guayra and Caraccas, scarcely larger than New York City in area, may be found the best specimens of every zone.

Home life in Venezuela differs so much from our own that I venture to tell a few things that seemed to me novel. After the first night's sleep ashore, the morning brought with it an up-land breeze, mountain odors of the balsamic eucalyptus, and a keen appetite, that only comes with rest and perfect health. The first meal was promptly served—desayuno, it is called—of coffee, with milk, delicious rolls, and cheese; and this is on the table at 7 o'clock.

Then comes an interval for walking, sketching, or making acquaintances, while the hostess is occupied with preparations for breakfast—an important affair.

This repast, called almuerzo, is served at 12. It begins with soup, runs up to half a dozen or more courses, finishes with sweets and black coffee, and leaves one in the best condition imaginable, quite ready for the siesta that follows—a cigar.

In this noon-tide human life is still, but the air is loud with sound. Thousands of insects, and many unknown birds, make the sunny day vocal, and from the mountain sides comes the whistle of troupials or the screams of a macaw.

Then comes the long lounge upon the wide veranda, a pleasant drive through the cool, refreshing air over excellent roads, until lengthening shadows mark the approach of swift night-fall. Lamps are lighted, the table is again spread for dinner, out upon the veranda, where another hour or two is spent over a longer, more elaborate meal than the noon breakfast.

One of the gentlemen captured a lightning-bug or cucullo, whose fiery plater gave a brilliant light as he crawled about the table.

Madam's pet tree, an immense specimen of some sensitive plant, folded its leaves and went to sleep.

Delicious fragrance from flowers that only bloom in darkness came to us upon the cool breeze from distant hills, and strange constellations sparkled in the sky we knew so well, that grew black as night came on.

We dallied with coffee and cigar, and listened to sweet voices talking Castilian, until there came to us a sense of absolute content, that dwellers in Northern lands can never know.

A pleasant side trip may be made from Puerto Cabello to the inland city of Valencia, some sixty miles by rail. Here is an excellent hotel, a beautiful park, filled with wonderful trees, splashing fountains, and glittering lights, and near by the famous lake of Fara Yaca, the largest in the land.

Its people are intelligent and hospitable, and will always make it a pleasant place for those to visit who care to know more of the country than her sea-port cities can present.

It is hardly necessary to add that to obtain the best results from a visit to the Spanish Main one

should speak Spanish, for no other language is used or known by the great mass of its population.

It is true that among the upper circles English and French are both spoken—the latter mostly; but wandering about the streets chatting with the people, or purchasing articles from the shops, at least some knowledge of the tongue that is native is necessary.

Throughout the country, with the sole exception of Caraccas, everything is cheap. One can live in the way the people live for \$2 a day; but I doubt if the majority of traveling Americans will grow fat upon such diet.

Their better way is to retain their rooms upon the ship, making such excursions as are possible while the steamer is in port.

From Venezuela the handsome ships of the "Red D Line" sail for home, calling at Curaçao, oldest of all the West India islands, if indeed Curaçao may be so called.

Where the clear water of the Caribbean assumes its brightest, most transparent blue, lies this island, whose singular outlines, deep shining lagoons and landscapes, quaint with the architecture of by-gone days, interests every traveler whom fate leads to southern shores. One fancies on landing that one has been transported backward two hundred and fifty years, and has before him the city of New Amsterdam, as it was when Holland ruled Manhattan Island. Every house, and most of the figures, might have been copied from ancient prints of old Dutch towns, and at church, when the minister came around, wearing a black felt hat, and ceremoniously bowed to his audience before he mounted the winding stairs that led to his lofty pulpit, and preached in fluent Dutch, he heightened the illusion until it seemed quite real.

The curious old streets are full of dark interiors, such as Rembrandt and Teniers have given us. Some of them are scarcely four feet wide. Into their depths the rays of a nearly vertical sun scarcely ever penetrates, and their very best views are impossible to photography by reason of lack of light. But there are rare chances for painters. Strange contrasts between the intense light that pervades the air, and the little dark, wide open shops where goldsmiths sit all day hammering out filagree work of gold, such as Etruscan jewelers once made; where now and then a shaft of fierce light cleaves its way through the darkness to a snowy turban, a crimson shawl, or the sparkling eyes of a naked baby. And such roofs, hanging gables, and picturesque blackness! Why, artists might spend months here, and find something new each day.

There are no wheeled vehicles, and tourists must walk if they choose to leave the single horse car track. If by chance a friend is found who owns a carriage, the prettiest drive in the island is across to Hatto cave, where Captain Kidd, as story books say, once lived for many a day.

It is not necessary to have more than a slight acquaintance with Consul Smith to be assured of his hearty hospitality. His pretty steam yacht is always ready to carry a party of his countrymen about the lagoons, and his charming family are always glad to meet their countrywomen.

The island is especially healthy. During the winter months a steady average temperature of 70° F. prevails, with strong breezes that sweep the streets clean.

There are no epidemic diseases. Nights are cool and quiet, and if there were a decent hotel, there is not a winter resort in the world where a nervous invalid, or those with Bright's disease, could be more comfortable or have a better chance to improve.

Equality of temperature, dryness of soil, and absence of all dissipation, also fit Curaçao for patients suffering with bronchial affections, especially those for whom economy is necessary.

But so far there is no house for visitors, and tourists are compelled to remain on board ship, where they are made comfortable and are well cared for.

From Curaçao one may go to Maracaibo, about two hundred and fifty miles away, the journey lasting a week, and giving plenty of time to visit the wonderful homes of the Lake Dwellers, the only ones upon the western continent.

Before I left home, this far away city with musical name had been the chief point of attraction. No one seemed to know much about it—an excellent reason for going.

Every one with whom I talked warned me against trouble from terrible heat, awful accommodations, and the constant presence of yellow fever. As careful inquiry as I could make, negatived all these statements, and in care of Captain Reith and his Virginia darkey steward, no pleasanter journey could have been made. Arriving, I found a city of some thirty-five thousand inhabitants, which stretches its red-tiled roofs and many spires backward from the water till lost in distance of treeless cliffs or dark sand-hills. Essentially a tropical town, it is not, during the winter months, subject to tropical heat, a steady breeze keeping the thermometer down to 78 degrees, while the sun was shining, and making nights cool enough for a blanket. When I wondered at this freshness, so different from the inferno of which I had been told, one of my new friends said that it was exceptional, that, usually, the weather was much warmer, and in summer the heat was steadily over 95 degrees.

It seems curious that every place that I have visited in thirty years' travel has always presented exceptional weather. But as this was exceptionally good, no fault was found.

Maracaibo's streets are free from wheeled vehicles, except a few carts for hauling goods. A single livery stable has two or three carriages, which are rarely let, the reason being plain after a single drive about town and in the outskirts. Except along the docks and upon the Calle Derecho, (the street called Strayh) driving is difficult, while outside of the town there are no roads at all.

When darkness comes, everybody goes to bed or otherwise disappears, and after eight o'clock the city is deserted. It is both clean and healthful. Even in the narrow slums where the Indians live, no offensive sights or smells are encountered, and diligent inquiry at hospitals established the fact that there had been no epidemic sickness for months.

There was not a case of fever of any kind, and the natives everywhere looked robust and well.

Excellent water is supplied in profusion from a spring several miles away.

To the traveler and archaeologist there is nothing more interesting than the town of Santa Rosas, where the Lake Dwellers have built their curious homes, and where the customs and manners of an epoch, too far distant for history, remain in their primeval condition.

Even tradition cannot say when they began to live in these water houses.

They were there when the Spanish invaders passed them by as too poor for plunder, too insignificant for prey. No one knows where they came from. They cannot themselves tell, and all their history is lost, every tradition forgotten.

Even from Maracaibo it is not an easy matter to reach them, for their home is ten miles down the lake, and the only means of communication are those that the traveler finds for himself.

I spent an entire day at the village; obtained a number of photographs, some implements used in their daily lives, and a bundle of poisoned arrows with which they do their hunting.

Most of the young women are good looking. They are reared for sale, but on account of the general business depression, the chief said, prices were low.

He offered me his daughter, a bright lass of sixteen, turning brown in color, and beautifully formed, for twenty dollars, but traffic in human flesh is not a favorite business with Americans.

Visitors to Maracaibo, who are fortunate enough to be guests of Captain Reith, will have no difficulty in paying a visit to this wonderful village of the lake, and I regard a trip to the Spanish Main as incomplete when it does not include a visit to its wonderful inland sea and its remarkable water village.

Sitting on the "Maracaibo's" deck, the evening when we sailed into Curacao, homeward bound, a half dozen Venezuelans and the writer sat talking of travel, of pleasant acquaintances made and lost, and of the great improbability that all of us would ever see again the shores we had left a few hours before.

Sunset changed quickly to darkness as we ran into port, and, parting, I said to my new made friends, "Perhaps we may meet again in Venezuela, who knows."

They gravely answered, with uncovered heads, "Li Dios quiere, caballero,"—Sir, if God wills.

CHAPTER X.

COSTA RICA.

A WORK professing to be a sanitary guide to the West Indies and Spanish Main, would manifestly be incomplete if it did not contain some account of the very valuable and almost unknown health resort of Central America. To most of our people, this country represents to the imagination little besides a wide expanse of primeval forest, perpetually baked by a tropical sun, seamed by a single mountain range, watered by a few insignificant rivers, and broken up into a number of independent states, which are inhabited by a savage and fierce race of people, descended from the ancient Aztecs and the Conquistadores, who ravished from them their lands, and made them a province of Spain instead. There are very few people among residents of the United States who could tell instantly if Central America, as a whole, is as large in area as Rhode Island or Texas, or who could say from what they remembered of their geography just what part of the American continent it occupies. Nor is this to be wondered at. Her ports of entry, few in number and not readily accessible, have been credited with the constant presence of that deadliest enemy to northern life that the tropics contains, yellow fever. To this terrible disease northern imagination has ever attached an amount of fear greater than that perhaps of any other existing, and invalids, for whom these pages are more especially written, do not care to go from bad to worse. When, therefore, I commenced to write of the beautiful resorts of Central America the approach to which is quick, easy and safe, whose climate is perpetual spring, and where there are excellent hotels, competent physicians and mineral springs of extraordinary power all under the supervision of a government republican in form, and strongly favorable to Americans in every way, I expected that it would cause some surprise.

In the winter of 1888 and 1889 I paid a visit to the states of Central America with the double object in view of studying her countries and their relative value as health resorts.

The ideal summer pre-supposes climatic conditions that make physical life from the highest to the lowest perpetual delight and rejoicing; and if there is any region in the world more favored than another it is a matter of importance to know where it may be found.

Beside a spirit of utilitarianism that prevails there is a growing interest in many questions of a known practical character, among which may be mentioned the early history of Central America, the monuments and traditions of its inhabitants, subjects well worth studying in vacation, if it be spent where the necessary conditions exist.

There are several ways of reaching the little republic that we are to visit, either from New York by the excellent steamers of the Atlas line, or from New Orleans by a line recently established. Others run from the Spanish Main direct from La Guayra to Colon on the isthmus of Panama, where still others connect with the northern lines for Port Limon, the Gulf sea-port of Costa Rica.

The cost of these several journeys is about the same, amounting to \$150.00 in round figures, each way. Once arrived at Port Limon, the rest of the way to the capital, San José, is at present traversed by a railway which has been built by an enterprising Yankee, Miner C. Keith, who practically controls this little republic.

When I made the journey two years ago, it was with considerable difficulty and no small expense, to say nothing of the spice of occasional danger, by mule; and one needed a tolerably steady head and firm set of nerves to enjoy riding along brinks of precipices where a single false step would effectually prevent any further search for health.

Visitors to Costa Rica will do well to provide themselves with letters of introduction to Mr. Keith, without whose acquaintance a large part of the enjoyment of a trip thither will be lost, and by whose aid a traveler will be at once at home.

At the sea-port there are no hotels, and it is best to remain on board ship until the morning when the train starts for the interior. As is the custom in all tropical lands, these trains leave at an early hour; no inconvenience, however, when one becomes accustomed to going to bed early and rising with the birds.

In the heart of this beautiful republic, amongst the elevated and lovely valleys of the Andean chain, there is a sanitarium absolutely unique in advantages offered to health and pleasure seekers, boasting of sublime grandeur of scenery and tranquil loveliness rarely surpassed. There are smiling valleys surrounded by the towering mountains of the Candelaria, the frowning volcanoes of Irazu and Turrialba, while from the earth hot springs pour out healing waters for whomsoever seeks their relief. Its atmosphere is cool and exhilarating, its extended forests abound with noble game, and its many lakes and streams contain plenty of fish. Besides which the region is full of important historic associations, while in the monuments of the remote past and legends of the Central American Indians, it is not equalled upon the continents.

Those who prefer a quiet, inexpensive and comfortable place where they can go dressed as they choose from day to day, and who can find pleasure in boating, fishing, and mountain exploring, or studying the customs and manners of a race of Indians whose manners and customs are as attractive as they are pictur-

esque, will be sure to find what they seek in the charming valley of Cartago, where, at an elevation of 4,750 feet above the sea, with a temperature that does not vary 5° the entire year, say from 65° to 70° F., hemmed in on all sides by the towering Andes, there is one of the loveliest spots in the world.

It is thirteen miles by rail from San José, and the springs themselves are a mile and a half from Cartago. There is a picturesque village at the springs where a company have constructed a bath-house and hotel, with a tramway to connect the establishment with the main lines of rail, upon which cars will run to meet every train.

The view from the windows of the hotel comprises the whole valley of Cartago, with its old Spanish missions, and part of the valley of Orosi.

Its climate is highly recommended for tuberculosis, as consumption is totally unknown in the country, and many cases brought here have been permanently cured.

Epidemic diseases have never existed on account of the elevation of the region.

Among the thermal waters are several springs valuable for all classes of venereal diseases, liver and kidney complaints, and rheumatism; paralysis and skin diseases are also benefited.

Guests can communicate with all parts of the world by telegraph.

In the surrounding mountains and forests are found more rare birds of beautiful plumage than elsewhere. All species of birds of Paradise, parrots and water fowls have made this their natural home.

For the botanist there are superb orchids, ferns, air plants in variety not found elsewhere.

The coldest temperature observed throughout the year of 1889 was at 4 A.M. on the 11th of January, 59°. The highest was at 2 P.M. on 30th of July, 71°.

During the months of January and February, not a drop of rain fell. During the months of March and April rain fell for seven days and eleven hours, with a total precipitation of ten millimetres. These figures show that the temperature of this favorite valley is that of perpetual spring, and I do not hesitate to recommend in the strongest possible way this favored spot as a sanitarium.

If tourists are fond of mountain climbing, they will be amply repaid by an ascent of the volcano of Irazu, and from its summit the Atlantic and Pacific oceans may be seen one hundred and sixty miles apart, and it is said to be the only place on the globe where this can be done. Its elevation is 12,000 feet.

People who do not like ascents, may readily find beautiful cataracts and rapids, among the best of which are the Falls of Paris, Falls of Colorado, and those of Orosi.

The temperature of the hot springs attached to the hotel at Agua Caliente are as follows:

No. 1.....	131°
No. 2.....	129°
No. 3.....	138°
No. 4.....	135°

And the following analysis has recently been made of their waters.

In each ounce there has been found two grains of solid matter, divided as follows:

Carbonate of Lime.....	0.4
“ “ Magnesia.....	.1
“ “ Iron.....	.2
Chloride Soda and Potash.....	.7
“ Magnesia.....	.2
Sulphate Lime.....	.3
“ Magnesia.....	.1

Total grains.....2

The gas which escapes with the water in considerable quantity is chiefly carbolic acid, and where the water cools, iron is precipitated, and at this temperature contains 100 per cent. of gas, giving to the water a slightly metallic taste. These qualities make these springs valuable for convalescents from fever, and for all persons who are naturally of feeble constitution. They closely resemble the well-known water of Aix La Chapelle and Baden.

Excursions may be made at any time to the capital city of San José, where thirty thousand people are living with all the comforts of modern progress and improvement.

There are macadamized streets, well paved sidewalks, street cars, electric lights, handsome buildings and beautiful parks. There are several good hotels, two clubs, a public library, and a fair theatre, and English is more generally spoken than in any other Spanish-American city on the continent.

Until last year the most prominent building was the beautiful cathedral, which had just been finished at enormous expense, when it was almost totally destroyed by an earthquake.

While speaking of this undesirable accompaniment to a residence in Costa Rica, I may say that the shocks that are common are exceedingly slight, and that while I was in the country three or four were said to have occurred that I knew nothing of until informed by native friends. It is exceedingly rare that any harm is done to life or limb, and the shock that did so much damage to the cathedral building was the first of any severity that had occurred for years.

Every Sunday evening a military band plays in front of the President's residence, and the feature is one of great interest to strangers.

I copy the following from an article in *Harper's Magazine*, written thirty years ago, which is as true to-day as it was then:

"The narrow street is crowded with listening groups, surrounding the musicians standing at their music desks, whose lanterns pierce the shadows, reaching groups of ladies listening at the door-ways, each one smoking a cigarette; lighting up a scrawny, black sentinel, leaning at a door-post of the President's house, rubbing one bare foot against the other; showing the white-washed wall behind him, with a yellow candle in a glass case suspended from the ceiling, and an officer in white trowsers and gold laced cap, who was just returning in-doors from an inspection of the crowd outside."

This was in January, and as we returned to our hotel at about midnight, and found not the slightest trace of dampness upon our thin clothes and uncovered heads, and went to bed in a room with open windows, where my thermometer marked 62°, the conclusion that we came to was, that Costa Rica was an excellent place to visit. It is more than I can say of other states of Central America. They appear to be at present in a condition of revolution, and it is not comfortable nor safe for an American to visit either Guatemala or San Salvador while the memory of the late American Minister remains, as it does to-day, a shameful thing in the minds of the natives and a disgrace to the administration that made him an American representative.

Expenses of all kinds are higher in Central America than in any of the West India islands.

Food supplies, with the exception of fruit and beef, are all imported from far away, by means of a small and expensive line of steamers, and hotel bills are necessarily high.

At the Springs a tourist may live for about three dollars a day, at the Capital for about four dollars, and everything in the way of clothing is dear. Cab fare, or mule hire, which usually replaces the cab in Central America, is also high, on account of the difficulty of procuring wheeled vehicles from Europe or the United States, and the lack of skilled mechanics to keep them in order, and a scarcity of animals. Horses, although small, are cheap, active and wiry, and may be depended upon to do good work for long distances. They may be hired for about two dollars a day.

Guides are very necessary through the forests and among the mountain ravines, and they, in common with all forms of service, are cheap and reliable. A good Reon charges from thirty to fifty cents a day, and finds himself. He also finds anything and everything that is lying around loose, which is more than the owner ever does afterwards.

Clothing is about the same as we wear in summer, the cool nights frequently making light wraps comfortable.

PORT LIMON, COSTA RICA.

Society Notes.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Special Meeting, December 16, 1890.

W. S. FOSTER, M.D., President, in the chair.

ALBUMINURIA AFTER TYPHOID FEVER.

DR. BATTEN: A girl eleven years of age convalesced, and became apparently well, September 9, after a malignant attack of typhoid fever. On October 24 she had a shuffling walk and depression of the left shoulder. She also had pain in the abdomen. The following morning I visited her, and concluded that the depression of the left shoulder was from irritation of the spine. Upon examination of the urine, I found that it was highly charged with albumen, and there were no symptoms of paralysis, except the depression of the left shoulder. She had use of her left leg and arm, but did not use them as well as she did the right. I put her to bed, cupped her over the back, and applied poultices over the abdomen, and put her on nitro-glycerine. She did not appear to improve under this treatment, and I changed it to iodide of potash, in doses of 5 grains every three hours. Under this treatment the albumen diminished and finally disappeared, and the shoulder took its normal position. On November 30 I discharged her, well. It is the first case of albuminuria I have had following typhoid fever.

TO PRESERVE CUTTING EDGES.—While attending Prof. Von Bergmann's surgical clinic at Berlin recently, the following demonstration was made, which will certainly interest your surgical readers:

To render instruments perfectly aseptic, and to preserve the cutting edges from oxidation, they are boiled for five minutes in a 1 per cent. solution of carbonate of soda. They can remain in this solution indefinitely without rusting or dulling the cutting edge. When required for operation they are taken out, dried with a sterilized piece of gauze, and handed to the operator. Whenever, in course of the operation, they come in contact with anything not aseptic, all that is required to re-sterilize them, is to dip them for a few seconds into the boiling solution of sodium bicarbonate.—Miller, *Dental Register*.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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THE IRREGULARS' BLUFF.

THE Pennsylvania Legislature has been the subject of much abuse and unlimited ridicule, some merited and some not; but never before has there been a greater insult to its intelligence than was offered in Harrisburg last week, when it was presented a Bill to establish a State Board of Medical Education. It should have been entitled: *An Act to deprive the honorable Medical Colleges of Pennsylvania of their chartered rights, and place them at the mercy of a Board, two-thirds of whom must be irregulars.* The salient features of this precious Act are as follows: The State Medical Societies of Pennsylvania, "homœopathic, allopathic, and eclectic" (sic), are each to appoint a list of ten members, from whom the Governor shall appoint a Board, of three from each list. This Board is authorized to "make all regulations as to the extent and character of the preliminary education which shall be required of all students of medicine." It "shall fix the minimum curriculum, and length of course of studies requisite to graduation." It "shall delegate one or more of their number, who, from time to time, shall make an inspection of the methods of instruction employed, and the facilities for teaching, in each medical college, and annually report such to the Board. To such colleges as comply with the requirements of the Board the certificates entitling the graduates to register will be issued without examination. Similar certificates are also to be issued to graduates of such foreign colleges as are approved by this Board and comply with its terms. Graduates of colleges whose requirements are considered below this standard must submit to an examination, for which they pay a fee of \$20. If the Board discovers that any college has granted the degree "to persons deficient in respect to either the aforementioned preliminary or final educational requirements, or without a final examination," the Board is empowered to impose a fine of \$200 to \$1,000 for the first offense, \$1,000 for the second, and annul the charter for a third!

That's all. Under this precious Act the Board of Irregulars acquires the right to rearrange the curriculum of the medical colleges at its good pleasure, and to take away their charters in case of refusal to submit. They can convert the University of Pennsylvania into a homœopathic or eclectic institution if they please, full powers for this being conferred by this Act. They can ordain that every school must supply hospital accommodations for any number of patients, to be treated exclusively by homœopathic and eclectic practitioners, if they see fit. They can demand that one third of the instruction shall be given by each school, or make any other rules of this sort they like, the Act giving them unlimited power in this respect. By inserting the word "allopathic," they compel the regular profession to acknowledge themselves to be quacks, or to leave their places on the Board unoccupied.

Is it possible that such a bill could be presented to our Legislature with any serious idea that it could be passed? We cannot say in what light it will be regarded by our law-makers, but, if the influences arrayed against the Examiners' Bill two years ago are still engaged for the sectarians, there is a very fair probability that this iconoclastic measure will become a law.

Many of our readers are probably aware that that bill came before a Legislature, of which a majority of the members amply large enough to pass the measure were pledged in its favor. But, when the final trial of strength came, these pledges were broken, and the majority shifted about to the opposition, so that it was with difficulty the profession then was saved from a Board of Irregulars. This change was effected by the able generalship of Henry Hall, of Mercer, to whom the people of Pennsylvania owe the defeat of a law that would have saved many a citizen from incompetent practitioners. Behind Hall was the man to whom the defeat was really due—Dr. Hugh Pitcairn, of Harrisburg, graduate of the Hahnemann Medical College, of Philadelphia, in 1880. Through what agencies did Pitcairn succeed? Our representatives in Harrisburg, endeavoring to induce members to keep their pledges, found themselves confronted by an influence against which they were powerless. No argument was of any avail. There had been no change of heart, the members still held their original belief in the advisability of passing the Examiners' Bill in its original form; but there was an influence controlling these men that compelled them to go against their pledges and convictions. As to the nature of this influence, we have no definite knowledge, and do not care to make surmises, without such proof as would convince any reasonable man. We are morally certain that not a dollar was spent in the Legislature by either party. We only know that we were met by an influence so powerful that we could not overcome it, and so hidden that we could not ascertain its source or its nature. Should the same influence be exerted in favor of the Act presented this Winter, there is but little reason to doubt that it will become a law; and Pennsylvania will then become an excellent State for regular medicine to emigrate from. No attempt has ever been made

by us to seek control of the teaching in homœopathic schools. Every effort has been made by those having our Examiners' Bill in charge to so frame it as to amply protect the citizens in their legal right to practice medicine as they see fit. The Governor is left free to appoint the Board as he pleases; but the special schools are entitled to examinations in their own methods. Out of the 8,000 physicians in Pennsylvania, about 7,000 are classed as of the regular school, about 700 as homœopaths, and 300 eclectics. Were the Board to be composed of members of each in this proportion, it would be giving the minority far more than it ever gets in politics. But this minority of one-eighth demands a two-thirds membership in a Board invested with more despotic power over the medical schools than any government in existence claims, unless it be that of Russia. The absurdity of such claims is so apparent that it appears probable that the originators of the bill had no expectation of passing it, but that it has been put forward with the object of frightening off the advocates of the Examiners' Bill now before the House. We are glad to say that if such be the design it has failed, and that the Examiners' Bill will be carried through to defeat or success.

THE TREATMENT OF TUBERCULOSIS.

THE topic now most frequently discussed in therapeutics is the treatment of consumption and other affections in which the tubercle bacillus plays a prominent part. In all our large cities the leading hospitals, with few exceptions, have wards where patients are placed who are undergoing the Koch treatment with more or less genuine lymph. This reflection upon the genuineness of some of the lymph is not without foundation, as the amount now actually in use in our hospitals is said to far exceed the quantity sent directly from Koch's laboratory. Prof. Laplace, of the Philadelphia Hospital, has just returned from Berlin with some of the lymph; and he states that up to the time of his leaving Germany only a few flasks of the precious inoculation material had been sent from Koch's laboratory to the United States, and it is believed that some thrifty German is doing a large business in spurious lymph. Excepting the case of Dr. Jacobi's, of the child with tubercular meningitis, who died after an injection, we have not heard of fatal results in this country following the trials of this agent, although some seven or eight have been reported in Berlin. If the reaction is not so great on our patients, neither, it must be confessed, are the therapeutic results so brilliant. Indeed, while improvement is noted (*"Quand on regarde dans les ténèbres on voit ce que e'on veut"*), nothing has yet been demonstrated from the treatment that would justify the intense excitement that has been described in the daily press, and in the scarcely less sensational bulletins and cable despatches of our weekly medical journals. After a storm comes calm. With the opportunity for deliberate judgment restored, comes a feeling of mortification at the spectacle of a dignified and more or less learned profession being exploited

in this manner by the sensational press. It is true that the finer sentiments of its members had been in a measure prepared for this, and their ethical perception blunted by the extensive use of antipyrine and other products of German laboratories in this country, in spite of the fact that they were proprietary remedies, and in order to obtain them our patients were obliged to pay extortionate prices; a tax on human infirmity which went to enrich the Barons. In this business the American physician has been made a cat's-paw; but the climax has certainly been reached when we are offered specifics for tuberculosis or anything else, which are not only exclusively manufactured in another country, but their composition is kept secret! Empiricism is long lived and dies hard. Since the Congress at Berlin last September it is rampant. We commend the consistent and truly judicious action of the French Government in refusing to recognize the alleged remedy or to permit its being introduced into France, until its composition was made known. To summarize the results obtained thus far in our hospitals need not take up much space; as far as has been reported they may be stated thus:

1. The lymph is extraordinarily active as a physiological and therapeutical agent.

2. It resembles, in its effect, a toxalbumen, or ptomaine, and not any chemical agent or vegetable active principle; although it may be a mixture or compound of the former with either or both of the latter.

3. When injected even in minute quantities and very largely diluted, it brings about in the course of a few hours a febrile reaction, in some cases, of serious hyperpyretic character, possibly lasting for hours.

4. In some cases where bacilli had been observed in the sputa, they have been less after the injections, and the symptoms of infection have become less marked.

5. No case of cure of phthisis, lupus, or joint-disease has yet been published by investigators here.

6. Some cases have been made worse by it, and old and quiescent tubercular lesions have taken on active morbid processes.

7. In case of tubercular lesions in the brain, the reaction is such that it involves a fatal result. The injection here causes death, from the fact that the lymph, according to Koch, without acting directly on the bacilli, induces a necrosis of the tubercular tissue, and necrotic processes in the brain are liable to be fatal.

8. The statement is made, and it sounds reasonable enough, that the treatment by this method is most successful in the primary stage of pulmonary infection; in fact, at a time when the physical signs being slight or not perceptible, the diagnosis is made only from the detection of tubercle bacilli in the sputa. It is not suitable to the more advanced stage, nor to the period of softening and formation of cavities, although it may temporarily alleviate the symptoms.

9. In lupus and diseases of joints, thus far very little worth noticing has been reported on this side of the Atlantic, as the result of this treatment.

Enough has been learned of the new method to warrant us in entertaining the opinion, based upon Koch's writings and the results of experiments on both continents, that its application, on any large scale, to the treatment of tuberculosis in man, was a mistake, and the publication premature. One great objection to the use of the lymph is the impossibility of ascertaining whether or not a patient with pulmonary tuberculosis has some tubercular nodules in his brain. If he has, we have the authority of Prof. Jacobi for the statement that treatment by the new method will in all probability prove fatal to the patient. It is evident that the new method must not be used without discrimination.

Moreover, the necessity for hygienic treatment and for regulation of diet and clothing, unquestionably remains as imperative as ever. Nor has anything yet been published that would warrant us in the belief that there will not be just as much demand for good cod-liver oil, hypophosphites, iodine, or hydriodic acid, and other remedies of firmly established reputation in building up the system and fortifying it against the vicissitudes of existence—including microbian invasion—as ever.

There is nothing in the new method that will require us, for the present at least, to abandon beef-peptonoids, Niemeyer's pills, and plenty of milk and lime-water, with a winter residence in a mild climate if the patient can afford it; or to make such a demand upon our faith as to require us to believe that the good effects of all of these can be concentrated and distilled into a new elixir of life, a few milligrammes of which, hypodermically administered, will restore a physiological bankrupt to a normal condition.

JANUARY 5, 1891.

[This article was written before Virchow's observations were published, but they do not require any change to be made in this article, they only prove it to be correct.—F. W.]

Annotations.

TIME brings most things right; and if one be sure of his position, he can generally afford to wait for a vindication. By Judge Allison's decision, rendered last Saturday, Mayor Fitler's stand in the matter of the Visiting Staff of the Philadelphia Hospital is sustained in every particular. The physicians composing this Staff are pronounced "professional experts," and as such are not required to pass a competitive examination; they are to be appointed for one year, by the Board of Public Charities. The abuse so liberally showered on the Mayor, and the loud talk of impeachment, because he would not adopt the views of the newspapers, are now to be judged in the light of this legal decision.

YELLOW FEVER.

IN a scholarly paper read before the Ninth International Medical Congress, by Alvarado, the author attributed the phenomena of yellow fever to toxemia by phospho-glyceric acid, produced by the action of the specific microbes upon lecithin. Have the reactions of the tubercle bacillus upon glycerine been as yet definitely ascertained? Glycerine is a very

peculiar body in its chemical relations; and just as a little nitric acid converts this harmless substance into one of the most deadly poisons known, so, by the influence of the tubercle bacillus on glycerine some toxine may be generated that is not a true secretion or excretion from this micro-organism. Altogether, we feel disposed to question Koch's dictum as to the uselessness of isolating the therapeutic principles in his lymph.

OUR POSTAL SERVICE.

POSTMASTER-GENERAL WANAMAKER has issued his annual report for the year ending June 30, 1890, in which much of interest and value is contained. Mr. Wanamaker enters with much practical insight into the discussion of the rates of postage, the moot questions of postal telegraph and postal savings bank, and has something of practical interest to say concerning increased facilities for mail delivery, and the need for still greater speed in this department of the work, as well as touching upon all the important questions which naturally come under his department.

Speaking of the civil-service system in the Post-Office Department, the Postmaster-General advises the examinations for the inspector force and the railway mail service should be made more difficult than they are at present. But, on the whole, the system, he thinks, works well.

The whole report is very interesting, and reflects great credit on its author, both as showing the efficient management of this department of the Government and his power of laying the work before the country.

Letters to the Editor.

AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

THIS association was organized on the 22d of January, 1891, at the Academy of Medicine, No. 17 W. 43d street, N. Y., by the adoption of a constitution and by-laws, and the election of the following officers: President, G. Betton Massey, M.D., Philadelphia. Vice-Presidents, Wm. J. Morton, M.D., N. Y., and Augustin H. Goelet, M.D., N. Y. Secretary, Wm. H. Walling, M.D., Philadelphia. Treasurer, George H. Rohé, Baltimore, Md. Council, Horatio R. Bigelow, M.D., Philadelphia, Pa.; Franklin H. Martin, M.D., Chicago, Ill.; Wm. F. Hutchinson, M.D., Providence, R.I.; Chauncey D. Palmer, M.D., Cincinnati, Ohio; Frederick Peterson, M.D., New York.

The object of the association, as stated in Sec. 2. Art. 1, of the constitution, "shall be the cultivation and promotion of knowledge in whatever relates to the applications of electricity in medicine and surgery."

The association starts out with a strong membership, and with every promise of a successful and useful career. The next meeting will be held in Philadelphia, on the fourth Tuesday in September next.

WM. H. WALLING, M.D., Secretary.

2005 ARCH STREET, PHILADELPHIA.

THE J. M. DACOSTA SOCIETY.

ONE of my friends, a young physician, handed to me a neatly printed invitation card requesting the pleasure of my company at a meeting of the J. M. DaCosta Society, to be held at their rooms, at

the College of Physicians, on January 16, at 8 P.M., when Prof. DaCosta was to address the society. As the society is composed of recent graduates of the Jefferson College, all of them newly-fledged Æculapians, I thought I'd go and see the boys in their glory.

I went early and found the hall already well filled with graduates of old Jeff. Here and there a student of the third course was to be seen sitting meekly and quietly, in awe of his superiors. It was a sight to behold. Some who had passed college life on the same hard benches, and, though living in the same city, had not met since they had graduated, were now engaged in friendly converse, recollecting their college life, recounting their experience, their first successes and failures, enchantments and disappointments. It was like a family that once more was gathered around the hearth. The Medical Diagnosis of Prof. DaCosta, donated to the society, and inscribed in his own handwriting, was passed around, and satisfaction and pride were depicted upon the faces of the DaCostians, the disciples of the man so dearly beloved.

Prof. DaCosta was unable to be present, and the boys were sadly disappointed. The President, Dr. J. P. Bolton, took the chair, and, in a short address, explained the aim and scope of the society.

As it was expected that Prof. DaCosta would occupy the greater portion of the evening, no one had prepared any paper or essay, which is, as I have learned, usually read at the meetings. Dr. E. O. Thornton came to the rescue, and announced that he would like to read a short paper on the Treatment of Diphtheria. It was a report of a case of diphtheria in his private practice, which he graphically described, and which was cured under the treatment of peroxide of hydrogen. The doctor was greatly surprised when one of the audience told him that Dr. Jurist had used the same remedy in fifteen cases, and one remarked: "Great minds run in the same channels."

The paper was discussed by many of the members present.

Dr. Loeb said that the German papers have largely discussed this question.

Dr. Bruner used the peroxide in ulcerated tonsillitis, as preparatory to touching with nitrate of silver.

The rational and chemical actions of the drug were discussed by the chemist, Dr. A. N. Jacobs, and pharmacists Drs. Blomer and Thornton, and others. The discussions were conducted in a manly way, and those present were greatly interested.

Before the meeting closed, Dr. Spivak, the secretary of the society, proposed that at the next meeting an "International Discussion of the Aspects of the Koch Treatment of Tuberculosis" be presented for discussion. The American view will be presented by Dr. H. F. Harris, the German by Dr. Loeb, the French by Dr. Jacobs, the English by Dr. Carl Weiland, and the Russian by Dr. Spivak.

I enjoyed the meeting immensely, and wish only that my letter may serve as a hint to the Chirurgeons residing in this city to form a society under the name of some beloved professor.

JOHN DAUD, M.D.

POST GRIPPE OTITIS MEDIA.—The characteristics of the post grippe otitis media acuta were: 1. Rapidity of onset. 2. Severity of pain persisting after perforation. 3. Tendency to be ambilateral. 4. Tendency to spread to mastoid. 5. Resistance to milder means of treatment. 6. Once established, its obstinacy and persistence. 7. Hemorrhagic nature. 8. Fever. 9. Swelling, etc., of surrounding parts.

—Stirling, *Montreal Med. Jour.*

Book Notices.

DISEASES OF THE EYE. By EDWARD NETTLESHIP, F.R.C.S. Fourth American from the fifth English edition. With a Chapter on Examination for Color-perception. By William Thomson, M.D. Philadelphia: Lea Bros. & Co., 1890.

The work has had a careful revision, and much pains taken to bring it up to date, by Mr. Holmes Spicer. For the colored plates of the former editions has been substituted a copy of Holmgren's colored plate. The chapter upon color-perception, by Dr. Thomson, includes the instructions of the Pennsylvania Railroad for examination of employes, as to vision, color-blindness, and hearing.

THE PRACTICAL APPLICATION OF ELECTRICITY IN MEDICINE AND SURGERY. The Beginner's Vade-Mecum. By R. W. ST. CLAIR, A.M., M.D. Philadelphia: R. H. Andrews, M.D., Publisher, 1890.

The book is just what the author pronounces it—a manual for beginners. He speaks to those who have little or no experience in electricity, and wish to know how to choose a battery and what to do with it. The book is written in an easy style, in language plain enough for any one to understand the author's meaning. Indeed, where the author feels compelled to disapprove of any other writer's ideas, he expresses his sentiments in words that do not admit of any mistake. Throughout, Dr. St. Clair's work is filled with practical hints. It reminds us of Mundé's Minor Surgical Gynecology in many respects. What is included under the name of "experience," is what this book supplies to the novice. To any of our readers who intend to buy a battery, but have never used electricity or paid any special attention to this potent agent, we would say: procure Dr. St. Clair's book and read it before you invest in this expensive apparatus.

The Medical Digest.

FRENCH NOTES.

A. E. ROUSSELL, M.D.

TREATMENT OF EPILEPSY BY THE CONTINUOUS CURRENT (G. A. Niemeyer).—In a preceding publication the author has already rendered an account of the good results obtained by the use of the continuous current in the treatment of epilepsy. One of the patients mentioned at that time remained two years, then sixteen months without having an attack. She was taking bromide of potassium in a very irregular manner. A second patient has only had three attacks during that time. A third patient had attacks of epilepsy every week for a period of eighteen months. For three months applications of the continuous current were made in the region of the central convulsions, and she was ordered bromide of sodium in daily doses of 60 grains. For ten months she had not an attack. After this time the treatment was continued in an irregular manner as the attacks returned at intervals of three months.

In a young girl of eleven years the attacks ceased after a treatment of two months by the galvanic current without the use of the bromides. A woman, twenty-one years old, had attacks of epilepsy since the age of seven years. The use of the bromide in large doses lengthened the intervals to nearly one year, but interfered greatly with the digestive and intellectual functions. Galvanization of the central convulsions are made with a current of 4 milliamperes (storage currents are not well supported);

during a period of seven months there were four attacks; the appetite remained poor. General faradization was then added to the active current, as well as gymnastic exercises; at the same time the patient received daily 75 grains of a mixture of the three bromides. The attacks have not returned, and the appetite has become excellent.

The electrical treatment is without efficacy in those cases where the convulsive attacks are caused by an organic cerebral lesion.—*La Médecine Moderne*.

ON THE INCREASE OF THE RED CORPUSCLES OF THE BLOOD IN THE INHABITANTS OF HIGH ALTITUDES.—M. Viault reports his experiments made on the high plateaus of Bolivia and Peru. Desirous of accounting for the modifications of the organism which permit man to support the rarefaction of the atmosphere at great altitudes, as well as the causes of mountain fever, the author commenced by studying the condition of the blood at different heights. After a prolonged sojourn at Movochocha, that is to say at a height of 4,392 metres, the blood contained 7,100,000 red corpuscles per cubic millimetre, whereas at Lima it contained 5,000,000.

PHYSIOLOGICAL ACTION OF MORPHINE ON THE CAT (M. Guinard).—In all animals, as in man, morphine first produces an excitant effect, soon followed by a narcosis more or less complete. The cat remains absolutely refractory to this narcotic action. He administered morphine in various doses to nineteen cats without producing this condition. On the other hand, morphine increases the action of other anaesthetics, such as chloroform, whose effect is notably hastened.

M. Milne Edwards observed the same facts in the large felines of the Garden des Plantes.

—*Bulletin de l'Académie de Médecine*.

A CASE OF CHEYNE-STOKES RESPIRATION WITH COMPLETE ARREST OF THE HEART DURING RESPIRATORY ACTION.—M. Hallopeau reports a case of the above, and arrives at the following conclusions:

1. The phenomena of Cheyne-Stokes may be accompanied by a complete arrest of the pulse and of the heart; this arrest is produced at the commencement of the respiratory action, and stops an instant before the pause.

2. A circulatory pause thus succeeds the respiratory pause, and one and the other regularly alternate.

3. Epileptiform convulsions may result, not, as stated by Traube, at the moment of the respiratory pause, but during the phase of the forced respirations.

4. These phenomena may be due, as the respiratory movements, to the excitation of the mesocephalus by the non-oxygenated blood.

5. The phenomena of Cheyne-Stokes do not necessarily indicate grave prognoses, even when it is clearly characterized.

6. It may continue for three years without causing death.

7. It may be observed in severe hysteria.

—*La France Médicale*.

DISEASES TREATED AT THE CHARITÉ IN 1890 BY THE METHODS DERIVED FROM HYPNOTISM (M. Luys).—These patients number 128; of this number 67 are cured, or 52.34 per cent.; improved 51, or 39.84 per cent.; stationary 10, or 007.82 per cent.

There were made in July..... 757 *transferts*.

" " " " August..... 813

" " " " September... 500

Total..... 2070 *transferts*.

For 80 patients, of which 25 were completely cured, 39 improved, and 16 remained stationary.

In Altotar there were made 732 *transferts* for 36 patients, of which 10 were cured, 16 improved, and 10 remained stationary.

Hysterical patients formed a large proportion of the total (49). Paralysis agitans followed in order; 3 out of 9 were cured.

Epileptics are equally benefited by the method of *transferts*. The same is true of neuralgias, of several cases of writer's cramps, of divers tremblings, of paralytic contractions, of cases of vertigo, of tabes and of certain psychical troubles due to bulbar congestion.

In obstetrics we can deliver women without pain and without danger by the method of *fascination*. We also wish to emphasize the altogether special action which the *transferts* may produce in the treatment of diseases of the heart, even when organic in character.

According to M. Luys, these methods of treatment applied to diseases of the nervous system, both acute and chronic, result in an average cure of 50 per cent.

—*La Bulletin Médical*.

INJECTION OF SALICYLATE OF MERCURY IN GONORRHOEA (A. G. Siltermintz):—

R.—Salicylate of mercury..... 2½ grains.

Distilled water..... 3 ounces.

Gum arabic, q. s.

Sig. After shaking, inject three times daily two syringefuls.

N. B.—The strength of the solution may be increased to two or even three grains to the ounce; in cases of chronic blenorrrhagia we may commence treatment with a solution of four grains to the ounce.

CREOLINE IN THE TREATMENT OF FOLLICULAR PHARYNGITIS (Ipzig).—Experiments made in the service of Leyden, at Berlin, with solutions of creoline 1 per 100, employed as gargarisms in the above cases, have given altogether remarkable results. In the course of twenty-four hours disappearance of fever, of pain and of local swelling. Each gargarism of creoline should be followed by gargarisms of lukewarm water.—*La Médecine Modern*.

MASTOID OPERATION AND ITS VALUE.—The value of the mastoid operation in certain severe cases of purulent middle ear inflammation can no longer be questioned. It has been too often proved to admit of any room for doubt. The dangers attending the operation, formerly greatly exaggerated, are to-day more justly estimated and less gravely feared. As regards the necessity for the operation, I rank myself among those who believe that it should rarely occur in these days of improved surgical therapeutics, that in cases properly handled it does rarely occur, and yet that in a small proportion of cases it may justly be regarded as imperative.

—Richards, *N. Y. Med. Jour*.

ANOTHER TREATMENT OF ASTHMA.—There is one other method of treating asthma that is not, I think, regularly practised, but to which I wish more particularly to draw attention. A person liable to attacks of asthma should be classed with those persons who have fits of epilepsy, and with those who suffer occasionally from "sick-headaches." By this I mean that all these patients have unstable nerve-centers, liable to explode their energies at any moment and exhibit the pathological phenomena peculiar to nerve-storms. Our treatment here should, I think, be an endeavor to break the habit morbidly acquired by

the nerve-centers, and by regular prolonged medication to maintain the centers in a state of more stable equilibrium. This is done very successfully in the majority of cases of epilepsy, and I have applied the same principle with success in cases of severe migraine and asthma. In these cases I give chloral and belladonna night and morning, or every night at bed-time, and I have found the attacks not only lessened in frequency, but also considerably diminished in severity.—Pearse, *The Practitioner*.

TREATMENT OF CASES OF TOXIC HYSTERIA.—The treatment of these cases should be twofold. By the administration of iodide of potassium we may promote the elimination of the lead which has accumulated in the system, while, perhaps, acting through the imagination, we seek to get rid of the motor trouble. Several of the French cases have been cured by the application of a large magnet to the affected side, and in several cases the characteristic phenomenon of transference, or passage of the analgesia to the corresponding limb on the opposite side, has been observed. Others have been cured by the douche; others, again, by a weak galvanic current, especially when applied to the skin by means of a brush electrode. We have tried the douche for our patient, and he has greatly improved under it; he is now getting galvanism daily. He has also taken a mixture containing iodide of potassium and magnesium sulphate. We have not used isolation and massage, the value of which we have so often demonstrated in female hysterical patients, because we have no male isolation ward in which it could be carried out, but we have no doubt it would prove equally effective.

—Saundby, *Lancet*.

THE REMOVAL OF THE UTERUS FOR CANCER.—The two things to be attended to are the careful stopping of all bleeding, and the most rigid antisepsis or cleanliness, as some call it. Drainage is not necessary; indeed, there is little to drain if the wound be carefully closed, and it should be as carefully closed as any other abdominal wound. I prefer strong horsehair to anything I know. These sutures cause no irritation; they may remain in any length of time, and are easily removed. Possibly catgut may be better, but I have had a long experience of horsehair, and am satisfied with it. Many years ago an old medical friend came for me in haste to stitch up a badly torn perineum and rectum in the case of a lady whom he had just delivered by forceps. Some weeks later he called to tell me that she had done well, and was leaving town that afternoon. I asked when he had taken out the stitches—there were seven or eight of them. He had never thought of them, for he supposed I had used catgut sutures. He made some excuse for making an examination before she left, but he found no trace of the sutures, and he has confined her since without accident.

The practice of securing the broad ligaments by strong locking forceps, or even by specially-constructed clamps, and letting these remain on for some days, or till they drop away of themselves, does not commend itself to me as good surgery; neither do I care to use the cautery. The chief risk of this operation arises probably from hemorrhage, and death from hemorrhage is not infrequent when the cautery is used. The reason of this is that the action of the cautery must be incomplete, there being no room to apply pressure behind the cauterized parts. The simple way to do this operation is to do it with scissors, to go as wide of the disease as the bladder or

ureters will permit, to stop all bleeding and oozing, and to close the wound carefully, uniting peritoneum and all the structures. Some are cured, or die years after of other diseases; and when death does come from a return of the disease, it comes in a milder and less terrible form, generally from some intraperitoneal affection. The misery of the spreading of the disease on to the vagina and outward, and opening into the bladder and rectum, is generally saved to the patient and her friends.

It need not be added that discrimination in selecting cases for operation is absolutely necessary. Unfortunately, the number who are alarmed in the curable stage is few, for the symptoms of the beginning of cancer of the uterus are unknown to, and are thus overlooked by, the patient. Her attention is rarely drawn to symptoms before the disease is past surgical interference. Operated on at an early stage, uterine disease will show results not much inferior to operations for cancer in other parts of the body.

Keith, *Brit. Med. Jour.*

NOTES FROM BERLIN CLINICS.—This question as to the amount of the dose is also of extreme importance when dealing with the hectic temperature of advanced phthisis. Are we, in these cases, to continue with small doses without increasing them until the temperature comes down? or are we boldly to push on to larger doses and high temperature reactions, even to the limit which the patient's strength will allow? From the cases I have had the opportunity of watching, and from what I have been able to hear, I think that the last named is the best for the patient; but upon this, as upon very many other points, we can only be guided by the results of patiently-gathered experience.

With regard to these advanced cases, the feeling seems to be that the lowered vital powers which usually accompany a hectic temperature renders them more or less unsuitable for treatment. This is especially so with regard to the digestion, for if the patients have not good powers of assimilation, the increased tissue metamorphosis brought about by the remedy will seriously undermine their strength. Further, it is necessary to remember that the remedy itself seems to have some special action on the stomach, for abdominal pains are apt to be caused when there is no reason to suspect abdominal tuberculosis. Too much attention cannot be paid to the diet of patients undergoing the treatment, but especially to that of advanced cases where there is a possibility of gastric or intestinal tuberculosis, for under these circumstances it may happen that both stomach and intestine may be the seat of very extensive ulceration, in consequence, probably, of the sloughing of tuberculous tissue which the remedy has produced. Such a condition has been recently demonstrated in the *post-mortem* examination on one of Prof. Leyden's cases, which has already been referred to.

As to the nature of the local reaction that takes place in the lungs, there is much still to be learnt, for we have to draw our conclusions almost entirely from evidence of a clinical and not pathological character. In addition to the congestive changes which give rise to the copious watery expectoration so usually seen during the reaction, we can frequently observe the development of actual consolidation, which may be of considerable extent, from the action of the remedy. This may be, however, unaccompanied by any special rise in the temperature, and such was the case in several of the instances that came

under my notice at Berlin. I did not hear any expression of opinion as to the prognostic significance of this inflammation, but in most of the cases referred to, the physical signs of consolidation cleared up in a week or so, on continuance of the injections. It seems likely that it is of a similar nature to the inflammatory reaction seen in tubercular tissue elsewhere, and is the process by which the morbid tissue is destroyed. It is possible, however, that it may sometimes partake of the character of a true pneumonia.—Wilson, *Brit. Med. Jour.*

METHYL-VIOLET OR PYOXANTIN.—I have employed this agent in microscopy as a staining material, knowing its special and thorough action as a stain for different forms of microbes, and especially for the micrococci, and that it always means death to the bacilli when it comes in contact with them, striking, as it were, to the heart or nucleus of all cells, paralyzing all vital action at once; but it had not occurred to me to employ it as a therapeutic agent ever in those diseases which are generally conceded to have their etiology in microbes, until my attention was called to it by Professor Stilling's able article, to which I have referred.

For marginal blepharitis or tinea tarsi, the methyl-violet pomade, $\frac{1}{2}$ per cent., carefully worked into the roots of the lashes by means of a spatula, works a speedy cure. Professor Stilling, from his bacteriological experiments, found that milk mixed with methyl-violet would not sour, nor butter become rancid; that urine, even, could remain in a thermostat at 32° C. for a week without putrefaction or presenting any bacteria whatever. In fact, any substance containing a solution of methyl-violet of even 1 to 32,000, is absolutely aseptic. This agent acts as an antiseptic, killing the pyogenic bacteria, and from its diffusibility and non-destructiveness to tissues it is superior to other known antiseptics, and especially to the thermo-cautery, which is so efficient a germicide but can only be used at limited points.

—Tiffany, *Medical Age.*

ON THE PREVENTION OF LACERATION OF THE FEMALE PERINEUM.—The best preventive treatment I have found is the following: When I find the head fairly engaged in the pelvis and advancing (however slowly) with each pain, I take my seat by the patient's bed, and, having first washed my hands and lubricated my left thumb or the first two fingers of my right hand, I introduce either into the vagina, and at the onset of a pain draw back the perineum firmly, but gently, towards the coccyx, relaxing the tension gradually as the pain lessens till the next ensues, and soon, till I can draw back the perineum with very slight effort, and thus tire out the muscular structures, and produce sufficient relaxation for the head to pass. In most cases so treated the perineum is in no danger, but when the pubic arch is narrow I take the additional precaution to foment the parts with very hot water and use an inunction of fresh lard and cold cream. *I do not make any pressure whatever on the perineum*, but retard the too rapid passage of the head, (which the hot fomentation might encourage) and direct the patient to straighten out her limbs on a line with her body while I steer the head forward by pressure on end of sacrum and coccyx or a finger in the rectum.

The delivery of the shoulders is most important; the one next the pubis being delivered first, the other being well pushed up so as to produce obliquity and lessen the strain backward.—Duke, *Prov. M. J.*

CERTAINTY IN THE DIAGNOSIS OF TUBERCULOSIS.—There is one absolute sign of tuberculosis—the recognition of its germ.

Upon the examination for the tubercle bacillus I shall say but a word. The Ziehl carbol fuchsin rapid method with heat I have found satisfactory in most cases, reserving for those of difficulty and importance the more elaborate and, therefore, more tedious and difficult procedures. A good one-fifth inch objective and medium or high eye-piece may be used by a skilled worker with very fair success. For expert work higher, dry or immersion objectives with good illumination are necessary. When there is doubt, and yet a positive result is important, one failure should not end the search; it should be repeated several times with carefully collected and selected material. After a number of years' experience I have changed my opinion somewhat as to the skill necessary for this diagnostic examination. Its adoption and practice by the profession has been urged on the ground that it was comparatively easy, and so it is in many cases. But there is a considerable proportion, including just those in which it is of greatest moment, which require thorough knowledge and the judgment and skill coming only from carefully studied experience. Either this must be acquired or such cases must be submitted to an expert. They should not be neglected, for these are often the ones of which it may be said—to-day is their day of salvation.

—Potter, *Indiana Med. Jour.*

REMARKS ON DIPLOCOCCUS PNEUMONIÆ OF FRAENKEL WEICHELBAUM.—It seems to be pretty well established by the researches of the past few years that the pneumococcus of Fraenkel and Weichselbaum is the bacterial etiological factor in the infectious disease, acute lobar pneumonia. But these same researches have shown that the diplococcus pneumoniae has another and a very significant rôle among the pathogenic bacteria. It has been repeatedly found either alone or in association with other germs in several of the not infrequent complicating lesions of acute lobar pneumonia, such as suppurative meningitis, endocarditis, etc. It has been also shown that, apart from pneumonia, this germ is capable of setting up suppurative inflammations in various parts of the body, as in the middle-ear, joints, etc. The case is an excellent example of this particular lesion of the brain and cord which has already been shown in a considerable number of cases to be associated with the pneumococcus.

Two points are worthy of notice in connection with the clinical history. The first is the early predominance of pulmonary symptoms, rapid breathing, cyanosis, etc., and those of a cerebral character. This appears to show that the effects of the infection were felt to a considerable degree in the lungs, even though the principal lesions were in the central nervous system. This seems not unnatural, since the diplococcus is more frequently the cause of pneumonia than of other inflammations.

The second point is the rôle played by the traumatism. This was definite and quite severe, and occurred just twenty-four hours before the onset of active symptoms. Was it simply a coincidence? It seems more likely that this may have been the factor which determined the brain, rather than any of the other organs, as the seat of disease.

No other cases of cerebro-spinal meningitis had been seen in the institution for a year, and no cases of pneumonia have occurred this season in the building which this infant occupied.—Holt and Prudden, *Med. Rec.*

THE DEFICIENCY OF NATIVE-BORN AMERICANS.

—The recent census of the United States appears to show that the birth-rate is declining, and is below that of most prosperous European countries. In spite of the very considerable increase in population, the increase due to births, which was about nine millions in the decade 1871-80, was only seven millions in the decade 1881-90. It also appears from the recent census that the number of persons between the ages of thirty and fifty is distinctly below the average. This is the more astonishing since the increase in the population of the States is largely due to immigration, nearly half the adults being foreign born. The number of women in proportion to men is unusually low, and this, taken in conjunction with the deficiency of males between thirty and fifty, may, perhaps, help to account for the low birth rate; but, however it is viewed, this low birth-rate is very surprising, though the enormous amount of immigration may prevent the population question ever becoming in the United States the burning question which it is in France. On the contrary, proposals made by Surgeon-General Hamilton, which would operate to considerably restrict immigration, are about to be embodied in a bill to be introduced into Congress. Among other formalities, it would require every immigrant to be provided with a certificate from the United States Consul nearest to his home testifying that his financial position, physical condition, and moral character entitle him to seek admission into the select society of America.—*Brit. Med. Jour.*

AN IMPROVED BATTERY.—No advances in the science of medicine within the last ten years deserve to be more understood than the perfection of the means for the electric illumination of the various cavities and organs of the human body. It has been, for a long time, a desideratum to get a battery so perfect that it would enable the practitioner or specialist to get so continuous and perfect a light, that examinations could be made easily and without the constant annoyance of failure just in the midst of an operation or careful examination. The old plunge battery was too unreliable and too clumsy an instrument to have in a nicely appointed treating room. The more improved storage cells, while serving the purpose better, have not reached that point of perfection where they can be constantly in use and always in good order.

During my sojourn in Berlin, at the meeting of the Tenth International Medical Congress, it was my good fortune to procure a battery which, up to the present time, has given me more satisfaction than any that I had hitherto tried. It is a battery the cells of which are made up of a carbon and a zinc plate, the fluid used being a solution of sal-ammoniac. The carbon is a new form, just recently patented in Germany, and not procurable in this country. The battery cells are placed in an adjoining room and connected by wires to the hanging shelf in the treating room containing the rheostats. This shelf takes the place at the same time of an instrument or treating table. It has conveniently arranged for the hand of the operator the rheostat for light, and that for galvano-cautery, as well as the switch-board, so that either light alone, or the galvano-cautery alone, or both together, at the same time, can be used. It certainly has given me for the last two months since my return from Europe, perfect satisfaction, being in use almost constantly for six hours daily, so that now it would certainly be a great deprivation to work without it, and come back to gas as an illuminating power.

—Sattler, *Cin. Lancet-Clinic.*

MULTIPLE NEURITIS.—It may be well, for the better elucidation of the subject—though quite unnecessary—to remind you that paralysis of motion or of sensation, or of both, may be due to either central disease of the cerebro-spinal axis, or to injury of or disease of the peripheral nerves. Thus, a hemorrhage into the brain substance or the motor paths in the pons medulla or spinal cord will manifest its presence by paralysis of motion of the muscles of the limb or limbs supplied by nerve force from these nerve centers; and again, the muscles of a limb may be powerless from injury or inflammation of the nerve trunks as they pass out from the cord, or of the nerves themselves, as they directly end in the muscles. In either case the limb is paralysed, but the seat of the disease and its nature are widely different. Hence the division of paralysis, as to whether it be "central" or "peripheral" in its seat, is both pathologically correct and clinically useful.

As a rule, the disease shows itself first in the feet and legs, and then in the hands and fore-arms, and its course and duration is chronic or subacute, lasting months and even years. Its termination also is usually in more or less complete recovery. This chronic course is, however, not invariably the case, as occasionally, and fortunately most rarely, the onset is sudden, paralysis attacks the feet and legs, and, rapidly involving the hands and arms, attacks the trunk and muscles of respiration, and ends fatally by suffocation or exhaustion within a few days, or a week at furthest. To this remarkable disease is given the name of acute ascending paralysis, first described by Landry.—Finny, *Dublin, Jour. Med. Sciences.*

ASPIRATION OF BLADDER BY THE DIEULAFOY METHOD.—In seeking the best method of evacuating the bladder, when the natural outlet becomes obstructed, and the cavity of the organ cannot be reached by the urethra, I am surprised that so few modern writers should touch on the *pneumatic* method; while as excellent an author as Holmes does not mention it at all, and Hamilton simply calls attention to it in a brief note.

Keyes' late work on Genito Urinary Diseases, is the first authority that it has been my pleasure to consult, who boldly places the Dieulafoy method of pneumatic aspiration, not only side by side with the cystotomies by puncture with trocar and canula, but in a large majority of cases places it ahead.

Deneffe and Van Wetter have collected and tabulated 306 cases of puncture of the bladder, as follows: 97 cases of rectal puncture with trocar and canula, with 11 deaths; 152 supra-pubic punctures with trocar and canula, with 6 deaths; and 57 cases of supra-pubic aspirations, and *no* deaths.

Dr. Bennett, in the *Annual of the Universal Medical Sciences*, 1888, says that "aspiration of the bladder for the relief of the retention of urine, can only be resorted to with absolute safety for cases in which the walls are presumably healthy;" and he bases his statement on the fact that a case occurred in his practice, where extra-peritoneal rupture of the bladder took place as a result of an aspiration. To me, viewing this statement from a theoretical standpoint, Dr. Bennett occupies untenable grounds, from the fact that in the case on which he bases his statement, the bladder ruptured from the puncture of an aspirating needle—and it is presumed he used one suitable to the occasion—while reason would suggest the probability of a more unfortunate rupture in case a larger instrument had been used.

—Whittecarr, *Kan. Med. Jour.*

CALIFORNIA AND ITS WINTER RESORTS.—The famous winter resorts of California lie near the ocean, or in the valleys of the Coast Range. People who visit the State for health or pleasure can always find what they want in some of the numberless towns that are well equipped for visitors. Monterey, once the old Spanish capital of California, and Santa Cruz, a city between the edge of the red-woods and the ocean, are the best of the northern resorts. San Luis Obispo, Santa Barbara, and San Buenaventura, are familiar names to every tourist. But by far the greater number of travelers are apt to find superior attractions, more companionship, and better accommodations at present in the southern counties of San Diego, Orange, Los Angeles, and San Bernardino. Some tourists winter in towns like San Rafael, Oakland, Berkeley, Los Gatos, San José, Napa, Santa Rosa, and Sonoma, all within reach of San Francisco, and more or less sheltered from the sea fogs or harsh winds. As far as mere climate goes, there are thousands of places in California that fulfil every reasonable requirement, and will in time become better known, but the more famous districts of "South California" are in all respects fully equipped for tourists, and will probably always attract the greater number of winter visitors to the Pacific Coast. San Gabriel Valley, for instance, with its mountains, its orange groves, its old Mission, and its picturesque suburban homes, is one of the most beautiful places in California; and so are the superb circular valley in San Bernardino, and Ventura's famous Ojai.

—Charles Howard Shinn, *Lippincott's Mag.*

OLIVER WENDELL HOLMES says in the *Atlantic Monthly*: Let me tell you one thing. I think if patients and physicians were in the habit of recognizing the fact that I am going to mention, both would be gainers. The law I refer to must be familiar to all observing physicians, and to all intelligent persons who have observed their own bodily and mental conditions. This is, the curve of health. It is a mistake to suppose that the normal state of health is represented by a straight horizontal line. Independently of the well-known causes which raise or depress the standard of vitality, there seem to be—I think I may venture to say there is—a rhythmic undulation in the flow of the vital force. The "dynamometer" which furnishes the working powers of consciousness and action has its annual, its monthly, its diurnal waves, even its momentary ripples, in the current it furnishes. There are greater and lesser curves in the movement of every day's life—a series of ascending and of descending movements, a periodicity depending on the very nature of the force at work in the living organism. Thus we have our good seasons and our bad seasons, our good days and our bad days, life climbing and descending in long or short undulations, which I have called the curve of health. From this fact spring a great proportion of the errors of medical practice. On it are based the delusions of the various shadowy systems which impose themselves on the ignorant and half-learned public, as branches or "schools" of science. A remedy taken at the time of the ascent in the curve of health is found successful. The same remedy taken while the curve is in its downward movement proves a failure. So long as this biological law exists so long the charlatan will keep his hold on the ignorant public. So long as it exists the wisest practitioner will be liable to deceive himself about the effect of what he calls, and loves to think are, his remedies. Long-continued and sagacious observation will, to

some extent, undeceive him; but were it not for the happy illusion that his useless or even deleterious drugs were doing good service, many a practitioner would give up his calling for one in which he could be more certain that he was doing good to the subjects of his professional dealings.

ANÆMIA.—In secondary and symptomatic anæmia we have conditions in which the blood deficiency is not the essential characteristic of the disease, and in which there are other symptoms present which are not explained by the existence of the anæmia. In primary and idiopathic anæmia, on the other hand, the anæmia constitutes the main characteristic of the disease, and the other symptoms are all dependent upon it. Dr. Hunter has well defined what characterizes an idiopathic anæmia. Dr. Pye-Smith would make a third division of cases of anæmia, "formed of all cases of anæmia associated with disease of the cytogenic organs, whether or not leucæmic." These, which undoubtedly form, clinically and pathologically, a compact group, should, I think, be included under idiopathic anæmia. In leucocythæmia there is not only a great excess of colorless corpuscles, but a marked deficiency of red corpuscles, to which many of the symptoms are due. As long as the question of the origin of the red corpuscles from the white is unsettled it is difficult or impossible to decide upon the relation of these changes. If, as many believe, the red are transformed colorless corpuscles, an arrest of development is a ready explanation. If, on the other hand, as seems to me more probable, all red corpuscles arise from pre-existing red corpuscles, this inviting hypothesis is no longer tenable. I would merely draw attention to one point which appears to me to militate against the view that the deficiency of the red corpuscles is due to a non-transformation of colorless into red corpuscles, and this is the condition of the marrow. In leucocythæmia the marrow is usually in a condition of hyperplasia, which is favorable for the production of colorless corpuscles, especially of the "eosinophile leucocytes," which Ehrlich has shown are always increased; but, growing as this does at the expense of the blood-vessels, it is unfavorable for the production of red corpuscles, which we have seen are formed in the venules. Somewhat similar arguments might be used regarding "anæmia splenica," "anæmia lymphatica," and "anæmia myelogenica."—Mackenzie, *Lancet*.

CINDER TEA.—There is yet a widespread belief in the medicinal efficacy of a dried Good-Friday bun in treating diarrhoea both amongst children and cattle. And the old doctrine of sympathy between the weapon and the wound it has inflicted is still common; so, the farmer's wife will carefully anoint the blade of a carelessly used knife to prevent a cut from it festering. In cases of phthisis I often miss the valuable information loss or gain in weight would give me, because "it is so unlucky to get weighed!" And the disfigurement, distress, or even positive pain from skin disease will be borne for many weary months rather than invite the danger of "driving it into the system." As for modern medicines being contemptuously set aside for the use of some old-world nostrum containing the same active ingredient amid a mass of repulsive and useless ingredients, that is of every-day occurrence.

Much of this is, of course, but a survival of theories and opinions which in past, and even to very recent times, guided or unconsciously swayed the most distinguished members of our own profession, and still

lingering amongst our patients, confront us as grotesque spectres of doctrines of which we are or ought to be very heartily ashamed. And we should regard them, therefore, with much the same indulgence as we look upon the mischievous pranks of our children, and with the uneasy consciousness that we did much the same, or far worse, in our own early days.

In Lancashire, I am told, cinder tea is still a panacea in high repute for half the ailments infancy is heir to, but, at the risk of confessing my own utter ignorance of its virtues, I heard the other day, with too evident astonishment, that it was being given to a very small patient of mine in the nursery of a neighboring rectory! In view of possible contingencies I was advising that a few grains of carbonate of soda should be given to the baby, which I had half apologetically announced to the mother as "another daughter" a few hours before. "Thanks: but nurse has a much better remedy than that for wind; she always gives cinder tea." "Cinder tea!" "Oh, yes; have you never heard of it before?" My evident confusion admitted that I had forgotten that a doctor should know everything: "But, it is only the little alkali, a trace of potash or soda the cinders contain: why not give the pure carbonate of soda itself?" A smile of gracious toleration, but with that deliberate closing of the delicately fringed eyelids, which says so plainly, "I really must decline to discuss the question," showed that retreat could alone save my reputation. I fell back on the weather.

—Cadogan-Masterman, *Prov. Med. Jour.*

LIQ. HYD. PERCHLOR. IN DIPHTHERIA.—Noticing in the *British Medical Journal*, of December 13, 1890, the high percentage of deaths from diphtheria, I am induced to suggest through your columns a trial of liq. hyd. perchlor. in drachm doses, given every hour at the onset, and then at longer intervals as the case improves. I have now adopted this treatment in about sixty cases with the best result, not having had a fatal termination since first trying it. My formula for a child of three or upwards is:

R.—Tr. fer. perchlor. ʒij.
Liq. hyd. perchl. ʒij.
Glycerine ad ʒij.

DOSE: A dessertspoonful every hour from four to six hours, and then every two, three, or four hours as the case may require.

For an adult I give:

R.—Tr. fer. perchlor. ʒij.
Liq. hyd. perchl. ʒij.
Glyc. ss.
Sol. pot. chlor. ad ʒviij.

DOSE: ʒj each hour, and repeated as in the case of the child.

The addition of potass iodid. to this mixture does not appear to have any beneficial effect. With this treatment local applications, such as painting the fauces, spraying the throat, or the use of gargles, are not needed, and in my hands appear to do far more harm than good. In severe cases poultices and the steam kettle are certainly beneficial. I find in most cases, after four or five doses, that the membrane becomes dull and soft, and inclined to pucker up; by the end of twenty-four hours it is almost like mucus, and ready for expectoration; and that by the end of forty-eight hours nothing but an inflamed sore throat remains. In one obstinate case I gave a drachm dose to a child, aged seven, every hour for thirty-two hours without any evil result. I have never yet met with a case of salivation from the use of this drug, nor have I seen a case of diphtheritic paralysis follow when it has been employed.

Some time since, when attending two children, the nurse girl contracted the disease. I sent her some medicine, and the next night, after dark and in heavy rain, she came to the surgery for more. The day following, instead of being worse, I found her considerably better. Since then I have not been so particular about confining a patient to one room, but have treated a number of cases where the patients have gone about, indoors and out, as they thought fit, with equally good results.

—Coward, *Brit. Med. Jour.*

TREATMENT OF DIPHTHERIA.—*General Treatment.*—The chief dangers of diphtheria, apart from its killing through asphyxia, due to its spread to the larynx, trachea, and bronchi, are, as has been pointed out earlier in this essay, the occurrence of syncope at any period in the disease, and of paralysis of vital organs after the membrane has disappeared. In but few cases does the fever cause much trouble; from my experience, indeed, the thermometer helps but little in this complaint. From the very first, then, I would give small doses of iron, the citrate of iron and ammonium, or of iron and quinine, being the most convenient form when given alone. But, if digitalis is given—one of the very best preventives of syncope—the *liquor ferri magnetico phosphatis* is much the nicest and most elegant preparation, though too expensive for hospital patients. The digitalis will have no bad effect on the kidneys; rather the other way, for it will flush them and so prevent the poison lodging there and irritating them. And digitalis will be utterly free from risk as regards exciting any of the nervous elements liable to be attacked by the poison. This last reason is a slight objection to the routine use of *tincture of nux vomica* or *liquor strychnine*, though both are good substitutes, and are invaluable in the stages of paralysis. If any drug is at all an antidote to the poison of diphtheria, probably strychnine is that drug, and injected hypodermically and frequently in the worst cases it may tide a life over a dangerous crisis. Certainly, I have seen persons, apparently moribund from different diseases, kept alive until they took, as the popular term is, "a turn" and recovered. Of *chlorate of potassium* I have no very high opinion; it may easily be given to children to a dangerous extent, and its action on the kidneys, too, is not at all beneficial. It seems, also, to have very little effect on the mucous membranes in diphtheria when used in lozenges, good as these are for other affections of the fauces. Plenty of food, especially peptonized foods such as Benger's, and alcoholic stimulants, are absolutely necessary. As diarrhoea is not at all a prominent feature of most cases, where the stomach is intolerant of food, or where swallowing is difficult or impossible (where there is the persistent vomiting mentioned and illustrated above), peptonized suppositories and enemas may be employed.—Simpson, *The Practitioner*.

SNAKE VENOM AND ITS ANTIDOTES.—Fayrer and I found that the cobra venom had an extraordinary irritant action on mucous membranes, and when it was introduced into the stomach of a frog it caused most violent vomiting, very unusual in that animal. This experiment suggests that the vomiting which forms such a prominent symptom in many cases may be due to the poison being excreted by the mucous membrane of the stomach in much the same way as tartar emetic or apomorphine would be. If this hypothesis is correct, we can readily understand why recovery may occur to a great extent, as in the case of

the animal treated with artificial respiration by the Indian Commission, and yet may ultimately die. For if the poison were eliminated into the stomach and intestines by the mucous membrane, recovery would occur; but if the venom, instead of being removed from the stomach as quickly as it was excreted, were to remain there and undergo absorption, the condition would get worse, and death would ensue. It therefore seemed to me that one should try, if possible, to remove any poison that might have been eliminated, and this one might do by washing out the stomach with alcohol in some shape, for example, whiskey or brandy. The want of means has prevented me from trying this method, but the hypothesis seems to me to explain the good results obtained by the free use of whiskey or brandy internally. It is not the action of these substances on the nerve centres that prevents death from the venom, for men bitten while drunk have died from the bite, although it is usually stated that if a man can be made drunk after he has been bitten his life will be saved. This would seem to indicate that the whiskey or brandy acts locally in the stomach, coagulating any venom which may have been excreted, and preventing reabsorption. The plan I therefore wished to test, had circumstances allowed, was to keep up artificial respiration, and wash out the stomach with whiskey or brandy. It is obvious that this plan might be combined with the subcutaneous injection of strychnine, and that, while the circulation and respiration were maintained by strychnine, alcohol might be freely given, and, after it had been removed by vomiting or the stomach tube, it could be given again and again, so as to wash the stomach out with it. This plan is itself not without danger; it should be tried in a laboratory, for large quantities of brandy or whiskey might, by their strongly irritant action in the stomach, lead to reflex depression of the circulation and fatal shock, to say nothing of gastritis in case of recovery.

—Brunton, *Brit. Med. Jour.*

FILARIA SANGUINIS HOMINIS MAJOR AND MINOR.

—The sheath, which is so distinctive a feature in *filaria sanguinis hominis major*, is not represented in *filaria sanguinis hominis minor*. I have looked for it most carefully and with high powers, and in all states of activity and torpor of the embryo, but have never seen any indication of it whatever. Dr. Stephen Mackenzie showed me a very effective method of demonstrating the sheath in the ordinary *filaria sanguinis hominis*. By adding an equal quantity of the warm urine of the *filaria*-bearing patient to a little of his finger blood, on examining the mixture with the microscope it is seen that by a process of endosmosis from the mixture of urine and serum and of exosmosis from the body of the *filaria* into the sheath, this becomes so distended with fluid that it stands out tense, distinct, and sharply defined, and is now no longer dragged after the animal as a lash, but moves with it as a rigid tube. It then looks like a piece of blown-out and transparent intestine.

If a specimen of *filaria sanguinis hominis major* is watched, although it is seen to wriggle about very actively, it does not appear to materially shift its position in the field. *Filaria sanguinis hominis minor* behaves somewhat differently in this respect. It wriggles about just as actively; but, in addition to this, it exhibits a tendency to bore its way among the blood-corpuscles in a more or less definite direction, and unless, as frequently happens, it becomes entangled in a rope of fibrine, it will in a very short time move off the field, if that is a small one, alto-

gether. It is to be presumed, therefore, that when in the human body, and in perfectly fluid blood, this locomotive habit is a constant one, and in some way subserves the interests of the *filaria*. I have watched the embryo entangle itself in the fibrine in the manner I have just alluded to. The locomotive tendency probably contributes to bringing this about—a result, by the way, very much in the interest of the observer, who otherwise might have a difficulty in following the little animal in its peregrinations. It seems to push the threads of fibrine in front of it for a time, and then, wriggling over the accumulating fibres with its tail, twists them into a strand which presently constricts it, usually at a point a short distance from the head. In this way it is kept a prisoner to one spot. The movements are now no longer locomotor, but are made round the constricting point as round a center. In some instances the string of fibrine from continued twisting becomes so tense that it produces a manifest constriction at the point where the *filaria* may be said to be hung up; sometimes it looks as if almost decapitated. My interpretation as to how this appearance is brought about may be wrong; but there can be no question as to the fact and frequency of this striking occurrence. As regards the duration of the movements, they slow down distinctly in twenty-four hours, become very languid in forty-eight hours, and usually cease entirely during the third day. I have seen the minor embryo alive, however, as late as ninety-six hours after its removal from the body, and probably by careful arrangements they could be kept alive much longer, just as in the case of *filaria sanguinis hominis major*. The disappearance of the embryos, remarked by Dr. Mackenzie in Mandombi's case, was probably owing, at least partly owing, to the locomotive propensity I have described leading the *filaria sanguinis hominis minor* to the edge of the slides, where it became dried up and invisible, or under a mass of corpuscles which concealed it. I believe the slides which Dr. Mackenzie watched and saw this disappearance in were slides that had been prepared from blood containing principally *filaria sanguinis hominis minor*, and only exceptionally specimens of *filaria sanguinis hominis major*. I have not seen anything to warrant the supposition that the embryos disintegrate rapidly on removal from the body.—Manson, *Lancet*.

THE *Index Medicus*.—Commenting upon Andrew's Harveian oration, the *Medical Record* says:

"The speaker's remarks about a certain much esteemed bibliographical monthly will awaken feelings of genuine horror among those who have been self-sacrificingly contributing to its support. He says: 'There is one publication which I regard with especial horror, the "invaluable" *Index Medicus*. I find that the volume for 1889, the last completed but not the greatest of eleven volumes, contains the names of not less than 13,870 contributors. Now, the index of the *Index* fully bears out the supposition that each pair of contributors represents not less than three communications, and thus we have a total of not less than 20,000 contributions to medical science for last year. I have much pleasure in admitting that many of them are short; but then it must not be overlooked that very many of them are substantial treatises in two volumes or more.'

"The trouble with the *Index* is not its bulk, however, but the fact that it is ingeniously arranged and published, so as to be relatively valueless to those who wish to consult it, and have not infinite leisure for so doing."

Medical News and Miscellany.

MR. CHARLES ALEXANDER EASTMAN, a full-blood Sioux Indian, has graduated in medicine at the Boston University.

THE *Medical Record* of January 17 contains a handsome colored plate, illustrating a number of cases of chancre of the finger.

DR. JOHN H. MUSSER delivered a lecture at Association Hall last Friday, January 23, upon "Tuberculosis and the Koch Treatment."

A NEW material called "lactite" has recently appeared in England as a substitute for bone or celluloid. Casein is the principal constituent.

It has been stated by an English investigator that a very large proportion of professional and amateur athletes are eventually affected with heart failure.

A TELEPHONE line about five miles long has been established in Iceland and is regarded as a great curiosity, being the first ever established on the island.

ALL pleurisies, even the simpler forms, are of bacterial origin. Such was the opinion generally expressed at a recent meeting of the Italian Medical Congress.

RECENT investigation into the curious question of the use of an annular drill by the ancients lead to the conclusion that jewel points were used in both drilling and sawing.

DR. JACOB H. GALLINGER, United States Senator from New Hampshire, is fifty-three years old. He began life as a printer's boy, and has been by turns a printer, editor, and physician.

A WISCONSIN woman with neurasthenia has adopted the rest-cure with a vengeance; having slept for three weeks and is still at it. Electricity has been used, but does not disturb her slumbers.

THE national powder mill at St. Medard-en-Jalle in France has recently been lighted by incandescent lamps and is believed to be the first mill of its class on the continent to use electric lighting.

PETER, the great opponent of Pasteur, reports that in twenty-one post mortem examinations he found that the lymph, instead of being beneficial, had led to an extensive increase of the tuberculous deposits.

PATENT medicines containing arsenic and phosphorus are responsible for many cases of fatty degeneration of the heart, and nearly every soda-water purveyor in the country dispenses beverages containing phosphorus compounds.

It is said that in a recent gale the anemometers on the top of the Eiffel tower registered 630 miles an hour. M. Mascart says that had this velocity occurred at the level of the city every chimney would have been leveled to the ground.

THE rise in the price of meat in Germany has not only increased the general consumption of horse flesh, but in Western Germany has led many of the peasants, who have had to forego the meat market altogether, to draw blood for blood sausages every Saturday from the living swine. The blood is let into sausage skins, is sprinkled with fat, and, after having thickened, is eaten with sauerkraut for the Sunday dinner.—*Pittsburg Dispatch*.

THE *Country Doctor*, of Arcot, Tenn., sends his friends a holiday present of a chart, containing Keen's differential diagnosis of tumors; Sachapelle's infant feeding; diagnosis of prostatitis and cystitis, and a list of solvents for uric acid.

A VERY instructive course of lectures and entertainments is being given to the Working Girls' Self-Culture Club, of St. Louis. Among others, we notice that Dr. Whelpley discourses on February 20 on "The Wonders of the Microscope."

ROADS blocked up with snow are giving the Algerines an experience rare in that hot country. Great suffering is reported from the unprecedented cold in the south of Europe; but not from the north, where the cold is greater, but people are accustomed to it.

A REMARKABLE petition is on its way from India to Queen Victoria. It is more than sixty feet in length, and is signed by more than 10,000 women in India who are anxious to have the legal marriage age for girls raised from its present limit of ten, to fourteen years.

THE publication of the *Journal of Laryngology and Rhinology* has been transferred to Mr. F. A. Davis, of 40 Berners street, W., as from the 1st inst. The editorial department will continue to be represented by Dr. Norris Wolfenden, of London, and Dr. John MacIntyre, of Glasgow.

THE Michigan State Board of Health has decided that "any person or pupil known to be affected with pulmonary consumption should be excluded from all public schools, colleges, and other institutions of learning, until such person or pupil is so far recovered from consumption that no cough or expectoration occurs."

HERE is a simple method of demagnetizing a watch: Place a compound horse-shoe magnet with the poles up, and, over a suitable support, carry a thread with a card-board scale-pan, in which the watch is placed, at one end. The thread is allowed to untwist itself as the watch is slowly removed from the magnetic field.

A MAN who has been annoyed for years by the fact that one side of his mustache grows about twice as fast as the other side, claims to have found an explanation in the circumstances that he sits all day at his desk with one side of his face turned to a window, the light from which stimulates the growth of the hair on that side of the face.

MRS. WILLIAM FREEMAN, of Jessamine county, Ky., is said to have given birth to a female child which had two perfectly formed faces. They are located at right angles on either side of the front of the head.

Both at the same time exhibit the same signs of the child's feelings; both crying or being in repose as the child's humor changes.

When last heard from the infant was doing well.

THE velocity of sound in air at low temperatures has recently been measured by determining the interval between the flash of the gun 12.8 meters distant and the report. For temperatures 10.9, 25.7, 37.8 and 45.6 degrees below zero (Centigrade) the velocities were 326.1, 317.1, 309.7 and 305.6 meters a second. From this it appears the velocity of sound diminishes 0.603 meter a second for each degree (Centigrade) or rise of temperature.

THE *British Medical Journal* discusses the question as to the best time of day for performing surgical operations. If done in the forenoon, abundant time is afforded, with daylight, to meet any unforeseen delay. In the afternoon, the night with its quiet comes quicker, to afford needful repose.

TYPHOID fever is reported to be extremely prevalent in Pisa, and to have extended to Florence. The epidemic is due to the use of water obtained from contaminated wells and the inactivity of the authorities is the less excusable, seeing that an abundant supply of pure water is available from the aqueducts with which the latter city is liberally provided. Intending visitors to Florence should take heed.

THE other day a newspaper contained the head lines: "General Miles ordered to capture the hostiles without harming them." Somebody immediately started the report that Miles had ordered from the department three barrels of chloroform, 1,000 sponges, and an equal number of long poles.

—Helena (Mon.) *Independent*.

ONE HUNDRED AND THIRTY-TWO Knights Templar contributed a piece of their cuticle to surgeons, who transferred it to John Dickerson, a fellow member, who had a cancer removed from his thigh. Enough skin was secured to cover one hundred and forty-four square inches of surface. The operation took place in the Emergency Hospital, in Chicago.

THE calendar crop this year was large and varied. The most beautiful of all was from Lee & Shepard. The "Don't Forget it," of E. B. Treat, deserves special commendation. The Philadelphia Bond and Investment Company has issued two very pretty calendars. We desire to say that the one which represents an aged alchemist bending over his alembics is *not* a portrait of any physician connected with the company.

A MEDICAL authority announces that microbes and bacilli are to be found in "sleeping cars and day coaches." Very likely. But now that some of Dr. Koch's lymph has come into Chicago we need not be surprised to find emigrant microbes leaving town without even taking time to put up a light traveling lunch of tubercle, and riding on freight trains as well as passenger coaches. There is reason to believe that some of the microbes will be glad to get even the chance to walk out.—*Chicago News*.

THE New York Academy of Medicine, Section on Obstetrics and Gynecology, held a meeting, Thursday, January 22. The order of business included: 1. Nomination and Election of Officers. 2. Presentation of Specimens and Instruments. 3. "Under what conditions may Electricity be of positive service to the Gynecologist," by A. F. Currier, M.D. 4. The Treatment of Menorrhagia and Metrorrhagia by the Galvano-caustic Action of the Positive Pole, by A. H. Goelet, M.D.

ON December 8, Professor Iginio Tansini, of Modena, performed total extirpation of a hydatid cyst of the liver, at the same time excising a portion of that organ. There was very free hemorrhage from the large cut surface of the liver, which was controlled by catgut ligatures. The wound in the liver was closed by means of sixteen sutures, partly silk, partly catgut. The operation was followed by no rise of temperature, and the patient (a woman) was quite well in less than a fortnight.

DR. F. BRAMANN, Professor of Surgery in the University of Halle, who in the absence of Professor V. Bergmann performed tracheotomy on the late Emperor Frederick, was married recently, and received on the occasion a patent of hereditary nobility as a wedding present from the reigning Kaiser. Kings are sometimes said to have short memories, but this graceful act, which reflects as much credit on the Sovereign himself as on the man whom he delights to honor, shows that William II has not forgotten the services rendered to his father by Dr. Bramann.

THE wonderful capacity of the Apollinaris spring has been recently set forth by the *London Times*. From the statistics given it appears that this spring contains sufficient water to supply 40,000,000 of bottles yearly for many a year. Last year the company owning the spring claim to have bottled 16,000,000 bottles. The method of bottling is described as follows: The empty bottles are placed neck downward on a revolving table, and a stream of water is repeatedly forced into each under high pressure. The cork is forced into them with a lightning-like rapidity. The spring is at Ahrweiler, on the left bank of the river Ahr, in Germany.

SEA-BATHING IN WINTER.—If you are not controlled by tradition you may take a few sea-baths at this season. Get in a sheltered spot, where the sun falls; take a dip and out again. After a brisk rubbing with a towel you will feel as bright as a diamond and be the color of pink coral. If you do it cleverly it is a safeguard against colds. "I went in all one winter," says Julian Hawthorne, "and have sat on a snowdrift on the beach putting on my stockings, while the water froze in flakes over my skin, and nothing but good came of it. But I would not advise this for everybody. You must know your own constitution and let your action be guided by what it can bear."

I BELIEVE that Koch's fluid is an agent of the highest possible value for the detection of tubercle, a remedy of great potency for certain of the slighter manifestations of tuberculosis, a palliative for some of the distressing symptoms of the severer forms of the disease, and a deadly poison in advanced or unsuitable cases. Probably when more is known as to its mode of action, it will be possible to do more good by its means, with less risk of harm, than is the case at present. A wider sphere of usefulness will, no doubt, be opened up to it when practitioners have learnt how to combine other methods of treatment with it to the best advantage.—MO: 11 Mackenzie.

How is this for the Koch excitement? A short time ago a telegram was received in the little town of Pabiania, which created great excitement. The telegram read: "Der Koch kommt zu einmal." At once the operator darted from the office with the announcement that the great bacteriologist was on his way thither. Preparations were made to tender him a banquet, and show all the honors due so distinguished a man. At last the train arrived and a German stepped out, and was at once greeted with cheers and tendered a speech. Much confused he presented a passport permitting the passage of Count P's new cook, whose arrival the telegram had announced in the words "Your cook comes immediately."

THE question of improving the standard of medical education in Russia, which has been under discussion for the last three years, has now at last made definite progress, and some steps have already been

taken to organize an advancement in one or two directions. It is stated that only regular cliniques exist at two places in Russia, namely, at the Academy of Military Medicine in St. Petersburg, and at the University of Moscow. The cliniques of the other Russian universities leave a great deal to be desired, although the authorities require an attendance of two years on the part of the students. It has, therefore, been decided that the number of regular cliniques shall be increased, and that proper clinical instruction shall be given in all the hospitals of the university towns.

TO BRING civilization within the reach of uncivilized communities is often, doubtless, a costly affair in many ways, even to the shedding of blood. But the benefits resulting therefrom are, for the most part, calculated to balance the outlay. As an instance of the civilizing work now being carried on, we note that in the Congo Free State a station hospital has been established at Bangala, on the Upper Congo basin, a little less than a thousand miles from the Atlantic coast. It was erected for the employés of the station, and contains forty beds, besides rooms for convalescent patients. This is a good work, the benefits of which will, we presume, be freely shared with the native community among which the institution is situated.

THE question of the absorption into the skin of solutions by means of electric currents has been, says Dr. S. Ehsmann, of Vienna, the subject of many experiments with me since Prof. Wagner first started the discussion by his researches on the cataphoresis of cocaine; and I have at last hit on a very simple experiment. Take two similar glass vessels, with zinc electrodes at the bottom, and fill with a very weak solution of methyl blue; and if an individual places one of his hands in each vessel, then, when a constant current of ten to twenty milliampères is allowed to pass for five or twenty minutes, the hand in the anode vessel becomes covered with blue spots, while the other is not marked. The spots appear most on the back of the hand, where the hair and fatty glands are situated; in the palm and around the nails they do not occur.

A GOOD deal of interest is excited in Paris by the case of Dr. Jules Soller, who, just when Koch's revelations are published, is suffering severe after effects from being inoculated with the lymph. He went to Berlin early in December to study the action and effects of the Kochine. Although not suffering from any illness, he underwent the inoculation, and on his return to Paris was taken violently ill. The symptoms were severe headache and backache, somnolence, and entire loss of memory. After his return from Berlin he went to a funeral, transacted business of importance, and had long conversations, but cannot remember anything about them. Three doctors attended him, but could make nothing of the case. He was kept rigidly in a dark room, and, after a fortnight in bed, Dr. Soller is just recovering, but expresses strong doubts of Koch's remedy.

A PATIENT at the Mercy hospital, Chicago, was sent from that institution to the detention hospital on a certificate of insanity. The hospital authorities refused to receive him, saying he was not insane. From there he was taken to the county hospital, where admittance was denied, and finally taken back to the detention hospital. By this time he was so badly exhausted that the physician at the detention hospital feared his death and took him in. The pa-

tient, who was in very feeble condition, was carted about four hours in a patrol wagon, and will probably die of exposure. The hospital authorities blame each other, and it is difficult to place the responsibility for the inhuman treatment of the patient.

—*Chicago News.*

WEEKLY Report of Interments in Philadelphia, from January 17 to January 24, 1891 :

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess.....		2	Inflammation brain.....	7	
Alcoholism.....	2		" bronchi.....	4	8
Aneurism of the aorta.....	4		" bladder.....	1	
Apoplexy.....	8		" kidneys.....	3	4
Bright's disease.....	11		" larynx.....	1	
Cancer.....	12		" liver.....	1	
Casualties.....	7	1	" lungs.....	33	16
Congestion of the brain.....	2	5	" pericardium.....	1	1
" lungs.....	1	4	" peritoneum.....	6	
Collapse of lungs.....		1	" pleura.....	2	
Cirrhosis of the liver.....	2		" s. & bowels.....	4	1
Consumption of the lungs.....	53	5	" uterus.....	1	
Convulsions.....		10	" tonsils.....		1
Croup.....	11		Insanity.....	2	
Cyanosis.....	2		Inanition.....	1	6
Debility.....	1	5	Locomotor ataxia.....	1	
Diabetes.....	3		Marasmus.....		8
Diarrhœa.....	1	1	Necrosis of the spine.....		2
Diphtheria.....		15	Old age.....	15	
Disease of the spine.....		1	Obstruction of the bowels.....	1	
" heart.....	1	4	Paralysis.....		2
Drowned.....	1		Spina bifida.....		2
Dysentery.....	1		Septicæmia.....	3	
Dropsy.....	1		Softening of the brain.....	1	
Embolism.....	1	1	Suffocation.....		3
Erysipelas.....		1	Suicide.....	1	
Enlargement of the heart.....	2		Syphilis.....	1	1
Fatty degen. of the heart.....	2		Teething.....		3
Fever, malarial.....	1		Tetanus.....		1
" scarlet.....		7	Tumor.....	1	
" typhoid.....	11	4	Ulceration of the stomach.....	1	
Gangrene.....	4		Uremia.....	4	1
Hernia.....	1		Whooping-cough.....		3
Hemorrhage.....	3				
Inflammation spinal cord.....	1		Total.....	246	146

THE Ohio Medical University is a new institution recently incorporated in Ohio, to be located at Columbus. The new university will consist in a department of medicine and surgery, a department each of dentistry, pharmacy, midwifery, and a training school for nurses; and will be supplemented by a large new hospital, the gift of a number of the wealthy, philanthropic Protestants of that city, and which is said will cost about \$200,000 when completed.

The incorporators of this new school are: Mr. George M. Peters, a prominent millionaire; Mr. William M. Mutchmore, an influential druggist; Dr. J. F. Baldwin, editor of the *Columbus Medical Jour.*; Dr. John W. Wright, oculist for the Columbus, Hocking Valley & Toledo, and B. & O. Railroads; Dr. R. Harvey Reed, treasurer of the National Association of Railway Surgeons, Mansfield, O.; Dr. A. E. Evans, surgeon of the C. C. C. & St. L. R. R., Columbus; Dr. A. F. Enninger, a prominent dentist of Columbus; and Dr. S. L. McCurdy, surgeon of the Pa. R. R., Dennison, O. One of the prominent features of the new university will be the abandoning of the old-fashioned system of instruction by lectures, and adopting, instead, the new plan of class teaching, similar to the methods now employed in the literary colleges. A graded course of three years of nine months each is to be adopted, which will include daily examinations and grading of the students, thus doing away with the necessity of a final examination.

This new method of teaching medicine, and allied sciences, has been agitated for years in a majority of the leading medical journals of this country and Europe, but we believe this is the first school to organize on the new plan. It is expected to have everything in readiness to open the new university about the first of October next.—*Jour. Amer. Med. Ass'n.*

THE PRESBYTERIAN HOSPITAL.—The formal transfer of the Administration Building and the new surgical wards of the Presbyterian Hospital, from the donors to the Board of Trustees, took place January 15.

The new additions, which are many times the size of the original plant, are as complete as any in the country. The Administration Building is the gift of John H. Converse, who has made it what it is at a cost of nearly \$100,000. The lower floor is given up to the superintendent's office, a library, a board room, elevator, doctors' offices, reception rooms, and a large clinic on the left. On the upper floors are parlors, rooms for nurses, doctors, and servants, bath rooms, and a number of rooms for private patients. Some of the latter remain to be furnished. The building is five stories in height, and with the illumined clock on the front of the tower it presents a striking appearance.

From the right of the Administration Building branch out the two new wards. One devoted to women is the gift of Lady Kortright, the other, devoted to men, is the gift of the Ladies' Aid Society. The former has been built and furnished throughout by Lady Kortright at a cost of over \$40,000, in memory of her husband, the late British Consul. The ward has twenty-eight white iron beds, each accompanied with table, chair and beautifully tinted rug. Connected with the ward there is a room for convalescent patients which rivals many a home in comfort and tastefulness of decoration. Large soft, blue rugs cover the floor, a cheerful fire burns in a large old-fashioned fire place, closets filled with dainty china, and pictures cover the wall, all of which, taken with a number of easy chairs, make of it a model sick room. The Ladies' Aid Society ward will accommodate twenty-eight patients, and will be furnished by the society in much the same style as that used in the Lady Kortright.

THE FEMININE PRESCRIPTION CLERK.

"What are you making, my pretty maid?"

"Nothing much," with a smile she said.

But for the result I grew rather afraid,
As the wonderful "nothing much" was made.

With strychnine and quinine she gently played,
And arsenic was just as good unweighed as weighed.

Gay dashes at oxides and sulphates she made,
And sizable drops on the mixture were laid.

On potassium cyanide she then made a raid,
While my hair did uprise and my color did fade.

"What is it, now that it is done, fair maid?"

"Oh, nothing much, sir, I guess," she said.

"And who did prescribe it, my drugstore maid!"

"Nobody but a lady M.D.," she said.

"'Tis truly a marvelous dose you've made—
This nothing from nothing, oh, mixing maid."

—*Pharmaceutical Era.*

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from January 1, to January 14, 1891.

By direction of the Secretary of War, Captain William J. Wakeman, Assistant-Surgeon, is relieved from further operation of Par. 13, S. O. 254, A. G. O., October 30, 1890, and telegraphic instructions of the 16th instant, from this office, transferring him from Fort Bidwell, California, to Fort Huachuca, Arizona Territory, and he will return from Reno, Nevada, to Fort Bidwell, for further duty at the latter post. Par. 3, S. O. 300, A. G. O., December 24, 1890.

By direction of the Secretary of War, the assignment of Major James P. Kimball, Surgeon, to duty at Fort Supply, Indian Territory, in Special Orders, No. 132, September 24, 1890, Department of the Missouri. Par. 6, S. O. 4, A. G. O., January 9, 1891.

By direction of the Secretary of War, First Lieutenant Henry D. Snyder, Assistant-Surgeon, is relieved from duty at Fort Reno, Oklahoma Territory, and will report in person to the commanding officer, Camp Guthrie, Oklahoma Territory, for duty at that station, relieving Captain John L. Phillips, Assistant-Surgeon. Captain Phillips, on being so relieved, will report in person to the commanding officer, Fort Reno, Oklahoma Territory, for duty at that station. Par. 16, S. O. No. 11, A. G. O., Washington, D.C., January 14, 1891.

By direction of the Secretary of War, Captain Francis J. Ives, Assistant-Surgeon, is relieved from temporary duty at Pine Ridge Agency, S. D., to take effect when his services can be spared by the commanding officer of the troops there stationed, and will then return to New York City and resume his leave of absence. Par. 9, S. O. 17, A. G. O., Washington, January 21, 1891.

By direction of the Secretary of War, Captain Edwin F. Gardner, Assistant-Surgeon, is relieved from duty at Pine Ridge Agency, S. D., and will proceed without delay to Fort Riley, Kansas, and report for temporary duty to the commanding officer of that post. Par. 10, S. O. 17, A. G. O., Washington, January 21, 1891.

APPOINTMENT.

Colonel Charles Sutherland, Surgeon, to be Surgeon-General, with the rank of Brigadier-General, December 23, 1890, vice Baxter, deceased.

By direction of the Secretary of War, Brigadier General Charles Sutherland, Surgeon General, will, as soon as practicable, repair to this city, and assume the duties of his office. Par. 9, S. O. 2, A. G. O., Washington, D.C., January 3, 1891.

PROMOTIONS.

To be Assistant-Surgeon, with the rank of Captain, after five years' service, in accordance with the act of June 23, 1874, Assistant-Surgeon Henry S. T. Harris, January 5, 1891; Assistant-Surgeon Leonard Wood, January 5, 1891. A. G. O., Washington, D.C., January 12, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending January 24, 1891.

RUTH, M. L., Surgeon. Ordered to the U. S. S. "Newark." February 2, 1891.

RUSH, W. H., Passed Assistant-Surgeon. Detached from the U. S. S. "Saratoga," and ordered to the U. S. S. "Newark." February 2, 1891.

ASHBRIDGE, RICHARD, Passed Assistant-Surgeon. Ordered to the U. S. S. "Saratoga."

HORD, W. T., Medical Director. Ordered as president of the Medical Board, to relieve Medical Director J. T. Taylor.

DEAN, R. C., Medical Director. Detached from Hospital, Chelsea, and ordered to Medical Board, Washington, D.C.

TAYLOR, J. Y., Medical Director. To be placed on the retired list January 22, 1891.

RUSH, W. H., Passed Assistant-Surgeon. Orders to the "Newark" are revoked.

ASHBRIDGE, RICHARD, Passed Assistant-Surgeon. Orders to the "Saratoga" revoked, and wait orders.

CABELL, A. G., Passed Assistant-Surgeon. Detached from Iron Clads, and ordered to the "Newark."

LUMSDEN, G. P., Passed Assistant-Surgeon. Ordered to the Iron Clads, at Richmond, Va.

PERSONS, REMUS C., Surgeon. [Ordered to the U. S. S. "Concord," February 10, 1891.

The Times and Register.

Vol. XXII, No. 6. NEW YORK AND PHILADELPHIA, FEBRUARY 7, 1891. Whole No. 648.

ORIGINAL ARTICLES.

PAGE

REPORT OF SIXTY CASES OF UTERINE MYOMATA. By J. H. Kellogg, M.D., Battle Creek, Mich. - - - - - 107

THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D. - - - - - 111

SOCIETY NOTES.

NEW YORK ACADEMY OF MEDICINE - - - - - 114

The Non-operative Treatment of Delayed Union in Fracture of the Leg. *Ridlon* - 114

Uniform Nomenclature in Orthopedic Surgery. *Townsend* - - - - - 116

Tuberculous Joint Disease Treated with Koch's Lymph. *Shaffer* - - - - - 117

MEDICAL SOCIETY OF BERKS COUNTY - - 117

A Case of Post Mortem, at the Reading Hospital - - - - - 117

THE POLYCLINIC.

JEFFERSON MEDICAL COLLEGE:

Epilepsy - - - - - 118

Chills and Fever - - - - - 118

Emphysema Complicated with Bronchitis 118

Pleuritic Effusion - - - - - 118

Tertiary Syphilis - - - - - 118

Chlorosis - - - - - 118

Lead Poisoning - - - - - 118

Pleurisy - - - - - 118

Atheroma of the Vessels with Overacting Heart - - - - - 118

Catarrhal Pneumonia - - - - - 118

Hypertrophy of the Heart - - - - - 119

Compound Comminuted Fracture of the Leg - - - - - 119

Sore Throat - - - - - 119

Erysipelas - - - - - 119

Basilar Meningitis - - - - - 119

Amenorrhœa. *Parvin* - - - - - 119

Eczema Squamosum. *Stelwagon* - - - 119

Epithelioma. *Stelwagon* - - - - - 119

Psoriasis. *Stelwagon* - - - - - 119

Cystitis. *Brinton* - - - - - 119

Injury on the Head. *Rex* - - - - - 119

Aphonia. *Solis-Cohen* - - - - - 119

MEDICO-CHIRURGICAL HOSPITAL:

Infantile Eczema. *Shoemaker* - - - - 119

Pustular Eczema. *Shoemaker* - - - - 120

Asthma. *Anders* - - - - - 120

A New Drug. *Woodbury* - - - - - 120

EDITORIALS.

POISONING IN DYEING ESTABLISHMENTS - 121

ANNOTATIONS.

Dr. Billings' Retirement - - - - - 122

Michigan as a Health Resort - - - - - 122

LETTERS TO THE EDITOR.

Motor Paresis Following Ether Injections. *Styles* - - - - - 122

A Case for Diagnosis. *O. F. H.* - - - - 122

BOOK NOTICES.

Text-book of Hygiene. *Rohé* - - - - - 122

Mechanical Obstruction in Diseases of the Uterus. *Hulbert* - - - - - 123

The Breathing Movements in Relation to Voice Production. *Makuen* - - - - - 123

Transactions of the American Gynecological Society for the Year 1890 - - - 123

THE MEDICAL DIGEST.

The Parasitic Origin of Cancer. *Warren* - 120

Notes from "Hospital Gazette" - - - - - 123

Hypersecretion of Milk - - - - - 123

Tape Worm. *Campi* - - - - - 123

Treatment of Gall Stones. *Lekarckie* - 123

Hemorrhoids. *Shuford* - - - - - 123

Psoriasis. *Hutchinson* - - - - - 123

For Headaches. *Hurd* - - - - - 123

Dysmenorrhœa - - - - - 123

Epilepsy Following a Depressed Fracture Produced by Forceps at Birth. *Lane* - - 123

The Phonograph in Testing Hearing. *Fiske* 123

Treatment of Cancer. *Dunn* - - - - - 123

Operating on Tubercular Peritonitis. *Ross* 124

Some Causes of Death in Diphtheria. *Symson* - - - - - 124

The General Practitioner's Treatment of Chronic Atrophic Rhinitis. *Loeb* - - - 124

Suppurative Tonsillitis. *Rice* - - - - - 124

Immense Ovarian Cysts. *Cartledge* - - - 125

MEDICAL NEWS AND MISCELLANY, 125

ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - 126

NOTES AND ITEMS - - - - - -iv, xii

Original Articles.

REPORT OF SIXTY CASES OF UTERINE MYOMATA, TREATED BY ELECTROLYSIS, WITH DESCRIPTION OF NEW FORMS OF ELECTRODES AND A COULOMBMETER.¹

By J. H. KELLOGG, M.D.,
BATTLE CREEK, MICH.

AS a student and assistant of the late Dr. Geo. M. Beard, of New York, some sixteen years ago, I became interested in the medical use of electricity, and for the last fifteen years have employed it extensively in the treatment of various classes of invalids in the sanitarium under my charge, in which not less than fifteen thousand patients have been treated by this agent, in connection with other therapeutic means. For nearly fifteen years I have made daily use of this agent in gynecological practice in its various forms. I had for several years noted the benefit of the galvanic current used in the treatment of cases of uterine myomata, before becoming acquainted with the improved method of application perfected by Dr. Apostoli, of Paris, and termed by him electrolysis. In the spring of 1887 I became acquainted with Dr. Apostoli's methods, and have since that time made very extensive use of it, with various modifications of my own. In the fall of 1887,

I obtained personal instruction from Dr. Apostoli, and afterwards, by his kind invitation, visited him at his clinic in Paris, where I had the opportunity of not only becoming familiar with the technique of his methods of operation, but also of witnessing the excellent results obtained by him. I was particularly struck, as every one familiar with Dr. Apostoli and his work must have been, with his patient and painstaking method of prosecuting his work, and with the infinite care with which morbid conditions were observed and recorded.

The purpose of this paper is to record the results of my personal work in the treatment of uterine myomata by electrolysis, to call attention to some practical points in the management of cases under treatment, and to discuss briefly the relative merits of this method and the surgical method by which the appendages of the uterus are removed for the purpose of artificially inducing the menopause.

As before intimated, the method employed has been essentially that of Apostoli, in which one large electrode is placed over the tumor, and made to cover a considerable portion of the abdomen, while the other electrode, properly constructed for the purpose, is introduced into the uterine cavity. I have employed the method of electro-puncture in only one case. The pelvic inflammation which followed the application, in spite of careful antiseptic applications, has led me to avoid this method, since I learned from Dr. Apostoli, when I visited him, that he employs the method of electro-puncture much less frequently than formerly. I consider the method accompanied by much greater hazard than the intra-uterine method, and rarely indicated.

¹ Prepared for the Mississippi Valley Medical Association at the Louisville meeting.

The general construction of the intra-uterine electrode, which I have had constructed, is shown by the accompanying cut (Fig. 1). It consists of a flexible whalebone or hard rubber stem, attached to a metallic staff, and covered with fine copper wire, which is insulated from the staff to within three inches of the inner end, the remaining portion wound with platinum wire, and tipped with hard rubber. The sleeve of hard rubber assists in the control of the instrument in introducing it into the uterus. It also serves as a means of insulating the staff of the electrode.

I find this form of electrode more convenient and durable than any other which I have used. In cases where the cervical canal is large enough to admit the graphite electrodes of Dr. Apostoli, I frequently employ these with advantage. I have thought it wise, however, to modify the latter form of electrode by the addition of a hard rubber tip, which precluded the danger of perforating the uterine wall, which, as is well known, often becomes very thin in places, through the stretching due to the progressive development of a myomatous growth.

In company with other workers in this field, I, from the first, have felt the necessity of some more satisfactory form of abdominal electrode. The clay electrode of Apostoli, while fulfilling its purpose admirably in most particulars, is nearly always complained of by patients on account of its weight, and the liability of soiling the clothing, to say nothing of the almost certain wetting of the clothing of the patient if the electrode is made sufficiently moist to secure a good contact with the skin. After trying all the various forms of electrodes, including the vellum-covered, water-chamber electrode of McIntosh, I, for some months, returned to the use of the clay electrode; but, still appreciating its disadvantages, I continued experimenting with various substances until I finally hit upon the idea of combining powdered graphite, or gas carbon, with gelatine. A number of experiments, kindly carried out for me by one of my assistants, Dr. Hoenes, proved this combination to be capable of fulfilling all the requirements of a perfect abdominal electrode. It is light, clean, adhesive, a good conductor of electricity, and durable. I have often had an electrode of this sort in daily use in my office for weeks without being able to detect any material deterioration in it. I find that a greater quantity of electricity can be communicated to the patient through an electrode of this composition than through a clay electrode of the same size. I attribute this to the more perfect contact between the skin and the gelatine-graphite electrode than is obtainable with a clay electrode. The gelatine-graphite electrode is made as follows: Dissolve 20 ounces of best gelatine in 10 ounces of boiling water; add 10 ounces of glycerine and 2 drachms of sodium chloride; beat well, and add 10 ounces of finely pulverized gas carbon, and mix thoroughly.

To form the above mixture into an electrode, take a shallow tin pan of the size desired for the electrode. Oil the outside of the pan with vaseline. Pour in a sufficient amount of the hot mixture to cover the bottom of the pan; lay in the pan a piece of sheet lint, cut of sufficient size to allow the edges to turn

up about one half inch around the sides of the pan; pour in some more of the mixture, sufficient to saturate and cover the lint; lay in another piece of lint, the same size of the first, and cover this also with the mixture in the same way. A third and fourth sheet of lint may be added, if necessary. Usually, two pieces are sufficient to give the desired strength. A piece of brass wire cloth, to one corner of which a binding post has been attached, is next laid in; add more of the mixture, if necessary, and then another piece of lint. The wire cloth and last layer of lint may be a trifle smaller than the electrode is desired to be. Lastly, fold the upturned edges of the first layer of lint over the back of the electrode, and apply a sufficient amount of the mixture to bind them in place. When the electrode is cold, and sufficiently hardened, carefully remove from the mold. If it adheres to the mold, pour a little hot water over the bottom of the mold. If the surface of the mold is not perfectly smooth, it may be polished with a spatula. Whenever the surface of the electrode becomes roughened by use, it may be smoothed in the same way. If the electrode becomes cracked, or its surface worn seriously, it may easily be repaired by adding a little of the hot gelatine mixture, and smoothing with a spatula.

I have used this gelatine-graphite electrode for more than six months, and am so well pleased with it that I have not had occasion to resort to the clay electrode in a single instance. I find it more useful in making applications to any part of the body in which a strong current is desired. I have found it especially serviceable in applying strong currents to the central nervous system.

I usually employ a current of from 50 to 250 milliamperes. For the last two years, through the suggestion of Dr. W. H. Riley, I have employed a coulombmeter for determining quantitatively the electrical dosage employed. It is perhaps unnecessary to explain that a coulomb is the standard unit of measure of electrical work. The instrument shown

in the accompanying cut (Fig. 2), which was constructed by myself and an ordinary machinist working under my instruction, determines the amount of electrical work done by measurement of the oxygen and hydrogen produced in the decomposition of water. This instrument consists, first, of two tubes,—one inside the other, supported by a standard. The inner tube is extended a short distance above the outer tube, and is about one-half the diameter of the outer tube. Both tubes are closed at the lower end. Two platinum wires, uncovered and supported at a short distance apart, enter the inner tube at the lower end. When the tubes are filled with a 1 per cent. solution of sulphuric acid and water, and the platinum wires are connected with the positive and negative poles of the battery, electrodynamic action occurs. Bubbles of oxygen rise in the liquid from the platinum wire, which represents the negative pole. By closing the upper end of the inner tube, the combined gas accumulates at the upper part of the tube; and as the inner tube is made to communicate with the larger tube, near its lower extremity, by a small opening in each side, the fluid contained in the inner tube is passed out into the larger tube as the gas accumulates in the upper part. By placing along side the instrument a graduated scale, the

FIG. 1.—A New Intra-Uterine Electrode.



FIG. 2.—A new form of coulombmeter

inner tube may be divided into portions of such size as will contain just the quantity of the combined gases produced by a current of one ampere acting for one second. This amount of work is called a coulomb. By subdivision, any desired fraction of a coulomb may be indicated on the scale. When the fluid has all been displaced from the inner tube by the accumulated gas, the instrument is easily adjusted for use again, by simply withdrawing the rubber cork at the upper end of the inner tube. The weight of the water in the outer tube quickly forces the fluid into the inner tube, and when the fluid in the two tubes comes to the same level, the instrument is again ready for use. The instrument I have in use registers 120 coulombs, which represents as much electrical work as any one is likely to do at any one time.

Placing the coulombmeter in the circuit with the milliamperimeter and the patient, one can readily measure not only the strength of the current determined by the milliamperimeter, but also the actual amount of the electrolytic work done during the séance, by the reading of the coulombmeter. I have found the proper dosage as regards the number of coulombs employed, to be from 30 to 120 coulombs. In administering the treatment I take no account of the time of the séance, but only of the reading of the milliamperimeter and the coulombmeter, giving the patient, as a rule, as much current as can be endured without excessive pain, and continuing the application a sufficient length of time to produce the number of coulombs which I judge to be the proper dose for the case in hand. I do not wish to be understood as intimating that a given number of coulombs represents a given amount of work accomplished in the tissues, irrespective of the strength of the current, as one might suppose would be the case. I have made a number of experiments on animal tissues of various sorts, both alive and dead, and find that while there is a definite relation between the number of coulombs developed during the séance and the amount of work done in the tissues, the latter is also influenced very naturally by the strength of the current employed. Nothing could be more erroneous than the supposition that the same result will be produced by a current of 50 milliamperes applied for ten minutes, as by a current of 100 milliamperes applied for five minutes. This proposition is true as regards the number of coulombs produced in the coulombmeter, but the vital resistance of the tissues is a factor which materially influences the result when the current is applied to the human body. That a definite relation exists, I am satisfied, however, and I am still prosecuting experiments to determine just what it is, the results of which I hope to be able to publish in the near future.

The after-treatment of cases to which electrolysis has been applied, is a matter of no small consequence, but one which seems to have received little consideration. I have known a number of gynecologists who allowed their patients to travel several miles in a cab, or street car, or on the railroad after an application of electrolysis, irrespective of the weather or the season of year. My custom is to require patients who have received an application of electrolysis to assume at once a horizontal position, and to retain it at least a greater portion of the time for the next twenty-four hours. A hot vaginal douche of boiled water, or water containing one part of mercuric chloride to six thousand of water, is employed immediately after the treatment, and twice each day for a few days following. In case there is a tendency to hemorrhage after the treatment, a mixture consisting of equal parts of

alum, iodoform, and subcarbonate of bismuth is applied to the cervix, and held in place by a few pledgets of cotton or wool. By the employment of careful precautions against hemorrhage, the occurrence of this disagreeable symptom, which not infrequently attends the beginning of a course of treatment by electrolysis, may be prevented. I have thus been enabled to treat with success cases which had been declared by other gynecologists to be unsuited to this treatment, after they have been unsuccessful for months.

In cases in which blood follows the introduction of the sound, I find it advantageous to begin treatment by a thorough curetting of the uterine cavity, and sometimes thus remove at the outset a handful of vascular vegetations, the destruction of which by electrolysis alone would have required several weeks of thorough treatment. I am certain that a great saving of time can often be made by this means, and it seems to me that one should not be deterred from its employment by a desire to determine with the greatest possible exactness the therapeutic value of electrolysis. The patient's interest must be considered first. The interest of scientific investigation must not stand in the way of the employment of any measure that will expedite the patient's recovery.

For more than a year and a half I have had in use another instrument which consists of a double canula intended to be applied to the cavity of the uterus. The uterine end of the instrument consists of a metallic chamber, the inner canula reaching only slightly past its center. The rest of the instrument is insulated with hard rubber. By means of a fountain syringe and suitable connections of rubber tubing, the metallic chamber may be heated to any desired temperature, from near the freezing point to 200° F. by a current of water passed through it.

I find that a temperature of 140° to 180° F. is powerfully styptic in character, coagulating albumen and desiccating the tissues in such a manner as to effectually close bleeding veins and arteries. It is also an excellent means for destroying vegetations. I have found this instrument a most excellent means of checking a troublesome menorrhagia. Its application is certainly less troublesome and painful than that of the galvanic current, and I am not yet certain that it is not more effectual in combating hemorrhage. It is also useful in cases of uterine catarrh, subinvolution, and other conditions in which stimulation of the uterine tissue is required. It may be used for the application of either heat or cold, or alternations of heat and cold.

Great assistance may be gained in the treatment of myomata of the uterus by electrolysis, by the simultaneous employment of massage, baths, a regular dietary, and other means calculated to improve the general health.

The following is a brief description of each of the sixty cases of uterine myomata included in this report:

CASE I.—Miss C., of Michigan; aged thirty years; single; menstrual periods, too frequent; flow very profuse. Depth of uterus, four inches. Examination showed presence of an interstitial fibroid. Began treatment May, 1887, and continued for several months, making forty applications, employing 100 to 175 milliamperes. Result: the abnormal flow was checked, the tumor ceased to grow, and the patient has remained in excellent health since.

CASE II.—Mrs. P., of Georgia; aged thirty years; married; never pregnant. Menstrual flow profuse and very painful. Uterus, about three times its natural size, evidently from an interstitial fibroid. The

patient received but two or three applications, as she remained under observation only a short time. No results recorded.

CASE III.—Mrs. C., of Michigan; aged fifty years; widow; three children. Patient had had profuse flow for a number of years. On examination, found a large uterine myoma, apparently interstitial in character. Patient was very anæmic from constant hemorrhage. Applied 250 to 300 milliamperes weekly. After the fourth treatment, the patient was suddenly seized with symptoms of phlebitis. Severe pain in the tumor, extending into the right limb, which became enormously swollen. Temperature remained at 103° to 105° for several days. The patient was so ill that her attending physician almost despaired of her life. She recovered, however, in a few weeks, and found herself in much better health than before. At the end of two months, the tumor was reduced at least one-half in size, and the flow had ceased entirely. The patient's health improved for several months, when there was a temporary return of the hemorrhage. At the present time she is enjoying very excellent health.

I think the extensive phlebitis in this case was due to too strong a current, as the most thorough antiseptic precautions were taken, as in all my cases. At the time, I employed an instrument which was manufactured in this country, and was not accurately calibrated. The instrument indicated one hundred milliamperes. The patient bore this current without discomfort, as will be testified by my friend Dr. G. Betton Massey, of Philadelphia, who was present on one occasion when the treatment was applied. Comparison of the milliamperimeter with an instrument which I subsequently imported, indicated that the actual current employed was about three hundred milliamperes. The notable improvement in this case immediately subsequent to the phlebitis, was doubtless due to the plugging up of many of the nutrient vessels of the tumors. I have often observed a slight rise of temperature and an accompanying increase of pain and tenderness, and some increase in size of the uterus following applications of the current.

CASE IV.—Mrs. O., of Michigan; aged forty-six years; married; several children. Menstrual period, prolonged; flow very profuse; much pelvic pain. Found interstitial and subperitoneal myoma reaching half way to the umbilicus. Patient remaining under treatment five and one-half months, in which time thirteen applications were made. A current of 100 to 150 milliamperes was employed. The excessive flow was stopped, the pelvic pain relieved, and the tumor ceased to grow. The patient is still in good health.

CASE V.—Mrs. S.; aged thirty-five years; married; one child seven years before. Flow excessive for several years. Extremely anæmic. Had been aware of the presence of a uterine fibroid for more than three years. Had been under the treatment of leading gynecologists in New York and Chicago, and had spent a year in a sanitarium in the east, yet continually grew worse. Suffered constantly from a severe headache and distressing exhaustion. On examination, found uterine myoma, evidently an interstitial and subperitoneal growth. The tumor had been growing very rapidly for six months. I saw the patient first in 1887. After employing other measures for several weeks, began the use of electrolysis, using from 150 to 300 milliamperes. The patient bore the current well, but suffered much afterwards. The flow was somewhat decreased, but the tumor continued to grow in spite of treatment. The patient remained under treatment several months, during which time

forty applications were made. The tumor continued to grow till it had reached two inches above the umbilicus, and the patient had become so weak that she was scarcely able to move about. Despairing of relief by other means, I recommended an operation. The appendages were removed by Dr. Lawson Tait. The patient made satisfactory recovery from the operation, and inside of two months the tumor had reduced to half its former volume. The menopause was induced by the operation, and the patient has since made uninterrupted improvement in health.

CASE VI.—Mrs. S., of Illinois; aged forty-four years; widow; no children. Noticed excessive flow for several years. Palliative treatment has proved ineffectual, the patient continuing to grow worse. Suffered much pelvic pain; a complete invalid for several months. Examination revealed an interstitial fibroid of such size that the tumor reached about half way to the umbilicus. This patient did not bear the current very well. Was not able to employ over 60 milliamperes of current, and was never able to make more than two or three applications a month. The patient was somewhat irregular in coming for treatment; nevertheless, after a few months, very perceptible improvement was manifest. The flow was considerably diminished from the beginning, and after six months' treatment the tumor had manifestly diminished in size. The patient is at the present time enjoying excellent health. Has had no treatment for nearly two years. The tumor gives her no inconvenience.

CASE VII.—Miss K., of Ohio; aged, thirty-five years; single. Profuse flow, much pain; subperitoneal and interstitial tumor reaching half way to the umbilicus; evidently a great amount of pelvic inflammation. Patient did not bear treatment well. Was never able to employ more than 40 milliamperes of current, and always suffered much pain afterwards. A week or two after each treatment, the patient seemed better; the tumor seemed to diminish in size somewhat, and I felt encouraged to continue the treatment. The patient became discouraged and returned home, and, as I learned subsequently, died some weeks later from an acute attack of pelvic inflammation. She had been subject to attacks of this kind before she came under my care. The inflammation seemed to be aggravated by the treatment, although it was employed as carefully as possible. I have no doubt the patient was suffering from chronic salpingitis, in connection with the uterine myoma.

CASE VIII.—Mrs. B., of Indiana; aged forty-eight years; married; four pregnancies. Profuse menorrhagia for a number of years. Menstrual periods too frequent and prolonged. On examination, found the uterus double normal size, in consequence of the presence of an interstitial fibroid. Made seven applications of electrolysis, employing 100 to 125 milliamperes. Result: the abnormal flow was checked, the menstrual period became regular, and the patient was restored to good health. A year later the menopause was established, and the patient is now unconscious of the presence of any abnormal pelvic condition.

CASE IX.—Mrs. M., of Wisconsin; aged thirty-four years; married; never pregnant. Suffered for several years with a rather profuse menstrual flow, and pelvic pain. On examination, found a large multinodular, subperitoneal myoma, reaching nearly to the umbilicus. Made twenty-nine applications of electrolysis, 100 to 175 milliamperes, 75 to 100 coulombs. The local symptoms and the patient's general condition were improved, but no appreciable change was made in the size of the tumor.

[To be continued.]

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

CHAPTER XI.

JAMAICA.

NEXT to Barbados, three days nearer sail to the United States, and surpassing every other island of the West Indies in access and variety of temperature, Jamaica comes next in our list.

Perhaps there are more ties between this beautiful island of the Caribbean and the United States than exist between us and any other.

Americans settled in Jamaica many years ago, and have built up prosperous mercantile houses, planted great fruit orchards, organized various lines of steamers, built fine hotels, and finally have succeeded in obtaining control of all the railways in the land.

These various enterprises have brought the island into such close and intimate connection with America, that the number of people who are familiar with our institutions is many times greater in this island than elsewhere.

It is a matter of considerable concern to the traveler to find that the State from which he comes is not confounded by the first acquaintance he makes with one a thousand miles north or south, and that his new friend does not place Boston on the west shore of the Mississippi River. It is also a comfort to find most excellent hotels, and a number of first class family boarding-houses, caring for strangers, at prices entirely within the reach of American people.

In value as a sanitarium Jamaica stands first of all in my opinion. It is true that in another chapter I have given high credit to Barbados, and do not mean in striving to do justice to our latest acquaintance, to retract a word said in praise of an older one; but for the invalid, or one who fancies that he is such, a greater range may be obtained in this beautiful island than anywhere else in the world, with the exception of Hawaii.

It is reached by several lines of steamers from New York, the best and most comfortable of which is the Atlas Line, and I can recommend my good ship "Adirondack" and her courteous and handsome captain, as affording the strictest, safest, and most comfortable transportation that there is. All her cabins are lighted by electricity. Her saloons are wide and airy, and every sleeping-room is upon the upper deck, all of which are comforts—which will be easily understood by any one who has traveled in the tropics.

For the health seeker, it is not sufficient that he should be acquainted with tables of ranges of humidity, when barometric pressure indicates a coming storm. It is very necessary that the physician sending him there should be acquainted in a general way with the climate and ordinary temperature of the place, but unless he has personally become acquainted with the locality and its advantages, he will do better to consult some intelligent lady who has visited the spot, and take her advice as to its more important peculiarities. I say an intelligent lady, for there are many things about a health resort of the utmost importance to invalids that a man would scarcely notice, or having noticed, would be likely to forget by the time he had returned home.

It is not the presence or absence of great things in the way of hotels and palace cars that make up the sum total of the advantage of one place over another to the exiled sick person. It is the numerous little

things, each one slight in itself, perhaps, but adding up rapidly what concerns doctor and patient alike. It is better to know what amusements can be found, and what society, than the highest temperature.

Are the hotels reasonable, economical and comfortable, or are they like the caravansaries of Florida, glittering palaces that need a king's income to live on? Can a tourist find in a chosen resort the privileges of church, libraries and reading-rooms, to which he has been accustomed, or must he forego these and depend entirely upon natural attractions? Even so trivial a matter as to whether he can have his clothing properly laundried, is of no small importance when thousands of miles from home, with a limited supply. All these little things make up a great part of the comforts of an invalid in a foreign land, and it is almost impossible to learn of their presence or absence except from one who has carefully considered them.

I need hardly say that one part of this work is to make the readers as familiar as possible not only with large and important things that he should know, but with little things as well.

I have already spoken of ways of getting to Jamaica from New York, and the traveler who has been visiting the Windward Islands, will find the steamers of the Royal Mail an easy way of getting there from this point; but that is all.

One cannot go via Cuba, for instance, nor as yet by Florida, although while these lines are being written I have heard from Mr. Plant that he contemplates extending his Havana line to Kingston, which will place Tampa and that port within forty-eight hours of each other, and totally avoid navigation of the North Atlantic during the stormy season. There are at present three hotels in Kingston—the Park Place, the New American hotel at Constant Spring, and the Myrtle Bank. The first and the last are in town, the one recently built some two miles out upon a knoll that partially overlooks the city and a bit of the bay. While there, my home was at the Park Place; that of several fellow voyagers at the Myrtle Bank; and two or three others stopped at the new house, recently opened by ———, at Constant Spring, being in process of construction when I left, and unless some different arrangements have been made for travelers to go backwards and forwards to town to the hotel than existed when I was there, I think I should still give preference to a residence in the city.

I drove out to the new location two or three times, and found that the cab fare was about a dollar each way, while the tramway running in that direction stopped a quarter of a mile short of the entrance to the hotel grounds, a matter of no slight consequence if one needed to go to town in the day-time. It is also likely that the regular \$2.00 rates of the hotel in town would be very much increased by an American landlord, with small probability of increase in comfort. Myrtle Bank has the most delightful location, with a beautiful park like garden extending directly back down to the water, where one may sit in the cool shade under the beautiful tropical plants and flowers, and enjoy the cool sea breeze through the hot hours of mid-day.

Cabs are plentiful and cheap, subject to a fixed tariff, from which drivers rarely depart. It is only when going beyond the city limits that a bargain need be made, as they then charge whatever they think best.

Mails to Kingston come from the United States several times a week, and there are regular telegraph lines, charging usual West India prices, in this case

\$1.25 a word to any point east of the Mississippi. It is my purpose to append to this work a table of boat, cab and railway fares in all the places written of, corrected to date, which, I trust, will protect tourists from extortion.

At this point, I quote a few figures which will speak more authoritatively of the climate of Jamaica than my small experience can do. They are taken from the hand-book of Jamaica, 1888-9, and are from the pen of Maxwell Hall, M.A., F.R.A.S. The readings of the barometer and thermometers are taken at 7 A.M. and 3 P.M., local mean time, and have been corrected to Kew standard; the dew point has been deduced from dry and wet bulbs by means of Glaisher's factors, and every care has been taken to insure accuracy.

KINGSTON, JAMAICA, MEAN RESULTS FOR 1887—ELEVATION SIXTY FEET—MEANS FOR MONTHS.

MONTHS.	TEMPERATURE.		DEW POINT.		HUMIDITY.		REMARKS.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	
January....	68.7°	82.4°	65.2°	70.5°	89	68	Fair, slight earthquake 9th
February....	68.6	81.9	64.2	67.6	77	63	Fine.
March.....	70.6	81.7	63.2	66.6	77	69	Fine.
April.....	75.7	81.2	67.8	71.0	77	70	Fair, with showers.
May.....	78.9	83.0	69.8	71.5	74	69	Fair, rainy season 15th.
June.....	79.3	84.0	70.3	72.1	74	68	Fair, with showers.
July.....	79.9	86.0	69.9	73.8	74	66	Fair, rain at end of month.
August.....	77.6	84.0	71.1	74.2	81	74	Fair, afternoon showers.
September...	77.7	85.0	71.3	74.2	79	68	Cloudy, earthquake 23d.
October....	75.7	82.0	70.3	73.4	84	74	Rain first half, fair last.
November...	74.0	84.0	68.6	73.3	84	71	Fair, with northers.
December...	69.1	83.0	68.5	70.4	83	55	Fine.
Mean.....	74.6	83.4	68.0	71.6	80	69	

Sloan's Natural History of Jamaica, says: "Generally speaking, the two great rainy seasons are in May and October." During the winter months of December, January and February, and March, which is worse than either of the others at home, the weather is continuously fine. I was on the island thirty days this winter and saw but one slight shower, which did not extend over a half mile of area, and lasted fifteen minutes.

It will be seen from the above table that the range of temperature for four months is barely five degrees, dew point and humidity about the same, and barometric pressure, which I have omitted, steady at 30 inches. This presents, I believe, as favorable a record as can be shown, and I leave the figures to speak for themselves.

The first consideration entering a physician's mind in thinking of any particular place as a climate cure is, what special diseases it is especially beneficial to, and what cases would be likely to lose ground if sent there. My own stay was too short to learn personally, and I answer in the words of my friend, Dr. J. C. Philipps, who has been a leading physician of the island for twenty-five or more years.

"Jamaica offers a great variety of climate, being in this respect unique among the West India islands. Invalids with dyspepsia and nervous diseases will scarcely improve in upland ranges, doing well in Kingston, while the entire island is extremely valuable in bronchial affections, pulmonary diseases, and all forms of rheumatism. There are valuable saline, sulphurous and chalybeate springs, which are among the most effective in the world. There is no necessity to watch winds, as the island is in about the middle of the trades, and has no strong gales in winter months. In the lowlands, temperature varies a few degrees from 80 as a maximum, but may be brought to any desired coolness by ascent of mountain sides.

One always knows when rains are coming, their advance guard being visible at a distance upon the mountains, giving time to seek shelter, and showers always follow regular courses, reaching certain points at certain times. There is a constant, unvarying high temperature, and yellow fever is almost a myth."

I learned also from Surgeon-General Morse, C.B., and Dr. Frank N. Saundes, Chief Medical Officer of the Public Hospital, that many wonderful cases of cure of advanced tuberculosis were on record, and that they consider the island climate particularly valuable in lung disease generally, and my own judgment, founded on my short observation, tends to confirm theirs.

As I have previously remarked, the beauty of Jamaica and its sanitary value largely consist in the fact that one may choose almost any temperature from torrid to mid-temperate. A short journey takes you to an elevation above the sea where it is sufficiently cool to sleep under blankets, and be absolutely comfortable and well-cared for in excellent private boarding-houses. Or, you may go to different places in the island, and select a comfortable hotel at exceedingly moderate prices, either by the sea or in the hill country. If the former, you will find that the sea breeze so tempers the heat that it is easily borne; if the latter, that you will be at all times pleasantly cool.

At Montego Bay, on the northern coast, easily accessible by land or sea, I found several Americans comfortably housed at a good hotel for seven dollars a week. The regular hotel price for bed and board is two guineas a week, about ten dollars.

At Mandeville is a beautiful village in the hills of Manchester parish, 2,200 feet above the sea, where there is one hotel, Brooks', and two lodging-houses, with neat rooms and excellent table. It is best to telegraph up a few days before going, either to the hotel, to Miss Roy, or to Mrs. Halliday, to have rooms ready, as the number that can be cared for is limited.

From Kingston to Porus one goes by rail seventy miles; fare, \$1.25; and, if a carriage has been previously engaged at Mandeville, two persons and a couple of trunks will be carried the rest of the way for \$2.50, over a splendid road, among delightful scenery of mountain and of glen. Once arrived, everyone is overpowered by an irresistible drowsiness, that quiets the nerves like a dose of somnal, and is continually hungry.

For a week or two, or for a season, the traveller may spend his time in a most delightful way at Mandeville, where grow famous mountain oranges, which I consider the finest in the world. He may stroll in flower gardens amongst unknown blossoms; may sketch or paint wide landscapes of tropical beauty; may visit the club-house, where tennis and cricket are favorite games; or he may sit upon his piazza after a good dinner and watch the coming of the glory of a tropical sunset far up among the hills. These are sufficient occupations for most people, plus getting well as rapidly as possible, and improvement comes with rapidity.

The valleys of the Blue Mountains are many and charming, and, if one is fortunate enough to have friends who are estate owners among them, he will be entertained in royal style, as I was at Mona, by my kind friend, Captain Forwood, and will have a chance to study home-life in Jamaica.

A pleasant excursion that may be made from Kingston, within the limit of two days, is the ascent of Blue Mountain Peak, some 7,500 feet above the sea. Roads

are sufficiently good to permit riding the entire distance, and there is a cabin at the summit where the night may be passed, and sunset and sunrise over a watched large part of the island and surrounding sea. It is necessary, however, to prepare for this excursion with food and candles enough to last, as there are no places to get either on the way. A pair of blankets should also be taken, as the nights are cool on the peak, where frost is not infrequent during the winter months.

Another excursion is around the island on the steamer *Arden*, sailing from Kingston three times a month, making about a dozen stops at different ports in the island, giving sufficient time to each place for a pleasant visit to the town. This trip is known to the natives of Jamaica as the most salubrious that can be taken within a short distance of home, and the boat is familiarly known as *Dr. Arden*. Round trip tickets, covering all expenses, are issued by the *Atlas Company* for \$25, and tourists will find in the stalwart captain a pleasant companion and guide to all points visited.

If, also, any one chooses to vary the trip, by disembarking from the steamer at any port visited, he is certain of being able to return home by land at very reasonable rates, over some of the finest roads and through some of the loveliest scenery that exists in the tropics. The price for two horses and a carriage, that will carry two people comfortably with all necessary baggage, is \$5 a day, placing expenses for food for animals and driver at about \$1 more. At this reasonable rate one may spend a couple of weeks or more in leisurely exploring the island, certain of meeting with each nightfall a comfortable place to stop, and abundant hospitality from estate owners near at hand. Main roads encircle the island at short distance from the sea, and are connected by frequent traversing avenues from north to south.

The regular price for cabs inside the city limits is twelve cents for one or two persons, and, as I remarked before, if a longer trip is contemplated, it would be better to make a bargain.

While in Kingston a most charming drive is to Spanish Town, through the beautiful drive known as *Bog Walk*. It is difficult to conceive of anything pleasanter or more beautiful than this deep ravine which a little river has carved through lofty mountains, and left on either side of its foaming path sufficient room for excellent roads to be built. At Spanish Town, which was the capital city of the discoverers who first visited all these islands and countries, there are traces, in curious old buildings, and a cathedral, of the occupancy of the first lords of the land. Besides these, there is a pretty park, surrounded by a number of handsome buildings that would be a credit to a much more prosperous nation, which were used by the Colonial Government up to 1871. At this time, by a marvelous piece of stupidity, the administration transferred the seat of government from this safe and healthy locality to the far less salubrious environs of Kingston, which lies within easy reach of attack from foreign forces. Spanish Town was originally named *Saint Jago de le Vega*, and contains, among other interesting relics, the Spanish church of the *Red Cross* of *St. Peter*, now the cathedral; two large cannon captured from the French by Lord Rodney, and the foundation of the *Spanish White Cross* church and convent.

Six miles to the southeast is *Passage Fort*, where the English conquerors landed, and near it the seaside village of *Port Henderson*, where Mr. Hotchkin has recently erected convenient homes for invalids

and others who care to use the waters of the wonderful spring at hand.

No money need be carried to Jamaica except our own. What is good in New York is good there, and better if taken further south. American gold is at par in Kingston, and at Colon \$5 sold for \$9 in silver. Then in Columbia I got 20 to 30 per cent. premium on that silver in the paper money of the country, which is at par in purchasing power in those countries. So it is easy to compute the relative cheapness of whatever is bought there.

Jamaica has, what is especially valuable in a sanitary point of view, its baths. There is no place in the world that combines the advantages of a climate like this with so many valuable spring and river baths as this charming island. Invalids with dyspepsia and nervous diseases will do better in Kingston than in the upland ranges; while the entire island is extremely valuable in bronchial affections, pulmonary disease, and all forms of rheumatism.

Let me quote here from a pamphlet written by my friend, Hon. J. C. Phillipps, M.D. He has been the leading physician of the island for twenty-five years. It is entitled: "*The Mineral Springs of Jamaica*." Referring to those only that are easily accessible, he calls attention to "the bath of *St. Thomas*, the *Apostle*; the *Jamaica Spa*, and the *Milk River bath*." To which I add the *Rock Pool*, at *Port Henderson*. Speaking of the first one, he says the water is "unusually light, sparkling when received into the glass, fermenting slightly with acids, turns silver black, and seems specially charged with volatile products. It restores the appetite and natural action of the bowels, invigorates circulation, cleanses the urinary passages, strengthens the nerves, and seldom fails to give one an easy sleep at night. Its continued use enlivens the spirits, and sometimes produces almost the effect of inebriation. These springs may be ranked as hot *thermic sodic calcic* waters, having a temperature of 120° to 130° F."

Jamaica Spa lies among the mountains of *Port Royal*, at an elevation of about 3,500 feet above the sea level, and is only to be reached by saddle animals at a distance of three hours from Kingston. The springs have a temperature of 66°, with clear, colorless water that leaves a red deposit in the spring, and along the course of its discharge. They contain sulphates of iron, lime, magnesia, and alum, in considerable quantities, are strongly chalybeates, and astringent to taste, and only need development to make them very valuable.

Milk River baths belong to the Government. In their circulars the directors say that the institution will furnish visitors with everything but food, for forty cents a day; and the matron will supply the latter at one dollar per day. They are readily accessible by steamer direct, or by rail and comfortable carriage.

The water has a temperature of 92° F., containing sulphate of soda, chlorides of sodium, magnesium, potassium, and calcium, with traces of lithia, iodine, bromine and silica. It is especially valuable in chronic rheumatism and allied diseases, in paralysis and gout, in scrofula, and in uterine diseases, particularly tumors.

He says: "I remember that an old surveyor whose joints were bent and distorted with rheumatism, went away in a totally helpless state to this spring, and returned in two or three weeks riding gaily on horseback, ready to set about his arduous labor. I have seen people who had been weeks in bed with acute rheumatism, sent down in carriages, taken into the

bath in a chair, who have been able after three or four baths to walk up and down twenty or thirty steep stone steps with ease and comfort, and permanently cured. A well known physician was there suffering with gout, and after three days was able to go out and dine with a friend at a distance. The proper months to spend at Milk River are January, February, March, and April."

Port Henderson I visited and examined as a guest of the owner, Mr. Hodgkin. It is beautifully situated on the sea coast, opposite Port Royal, where pure salt air and beautiful seascapes are constant. There are excellent lodging-houses close to the bath, to be let furnished, but servants and food must be obtained outside. Fish are plentiful, and other eatables can be arranged for at moderate expense. The bath itself is of strong saline taste, temperature about 70° F., and is peculiarly soapy, as if strongly alkaline, but no analysis has been made so far. It is some twenty feet square, from two to five feet deep, with constant renewal by bubbling springs, having a discharge of about 200 gallons a minute. Its bed is excavated from solid rock, and it is housed in and properly cared for. I could obtain but few data as to its value, except that it possesses strong tonic properties, eliminating fatigue and restoring sexual tone. There can be no more charming place for those who love sea views and sea air, and are content to have no other amusement than what they themselves can furnish.

In conclusion, it is probable that Jamaica and the United States will soon be so closely joined by several new lines of steamers, that Americans will find it easier to go there than it is at present to reach Bermuda, while between this and other resorts of equal nearness, there can be no question as to Jamaica's superiority.

Society Notes.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPÆDIC SURGERY.

Stated Meeting December 19, 1890.

V. P. GIBNEY, M.D., Chairman.

THE NON-OPERATIVE TREATMENT OF DELAYED UNION IN FRACTURE OF THE LEG.

DR. JOHN RIDLON presented a paper upon this subject, illustrated by two cases.

The first patient, Thomas C. B., thirty years old; unmarried; gave no history of any constitutional disease. On March 22, 1888, while endeavoring to escape a passing team, he sustained a compound fracture of the right tibia in the lower third. The fracture was treated by a plaster of Paris dressing under the direction of a very well-known and skillful surgeon. The plaster splint was renewed from time to time, yet on September 17, when he was admitted to the Roosevelt Hospital, there was still slight motion at the seat of fracture, and Dr. Frank Hartley found on exposing the parts at the time of operation that there was an oblique fracture of the tibia, passing from below upward. The space between the fragments was filled with a thin wedge-shaped piece of fibrous tissue. At the inner edge of the fracture there was a thin line of bony union. The fragments were freshened, and then wired together, and the plaster dressing applied. He remained in bed for thirty-one days, but at the time of his leaving the hospital, on October 22, the union was not solid.

December 27. He was transferred to Dr. Ridlon's care.

January 10, 1889. The plaster was removed. There was distinct antero-posterior motion, and soft union, but no callus could be felt. There was some tenderness on motion and pressure at the point of fracture. Only moderate constriction was made, as the dependent position, after the removal of the plaster, caused abundant œdema. The patient was allowed to go out of doors at once. At the end of nine weeks union was solid, and there was abundant callus. The patient said then that he had continued the use of the crutches for sometime, but had removed the upper supporting part of the splint at the end of the third week, as it was uncomfortable. The lower portion of the splint, which acted only as a lateral support, he continued to wear for about five months.

The other patient, Wm. D., twenty-two years old, was admitted to the New York Hospital on May 26, 1890, with a compound comminuted fracture of the right leg at the middle and lower thirds. The bones projected anteriorly through a large lacerated wound; there was much displacement, and much contusion. Dr. W. T. Bull removed the loose fragments, and secured apposition and good drainage. A rise of temperature necessitated a change of dressing, and Volkmann's splint was applied for three weeks, and, after this, plaster of Paris splint with a fenestrum. Union was delayed. He was allowed to walk about on crutches and partly on the leg for two or three weeks prior to his discharge on August 5, for insubordination. At this time there was some deformity, and he was still wearing the plaster splint. When the patient came under Dr. Ridlon's care on September 22, no callus could be felt; but there must have been soft union, as the fragments could not be displaced. The splint was discontinued, and in its place the caliper splint of Thomas, of Liverpool, was applied, being so modified as to prevent motion at the ankle. A laced leather sleeve was also added. A band buckled across the front, just above the patella, prevents forward bending of the knee, and another band below the knee surrounds the leg and outer bar, and furnishes the means of obstructing the circulation to any desired extent. The leather sleeve adds to the patient's comfort; but care should be taken that it is not sufficiently tight to check the desired œdema. As a result of this treatment, solidification slowly but steadily took place, and an abundant callus was thrown out. At the end of nine weeks, no motion could be detected, and he could walk across the room without the splint or any support. After the application of the splint, the crutch was used for only a short time, and he was soon able to walk three or four miles without discomfort, and, after eight weeks, he returned to his laborious occupation of unloading vessels.

These cases served to illustrate the treatment advocated by the author in cases of delayed union, which he was careful to distinguish from non-union, or pseudo-arthritis. The normal union of a fractured bone occupied a pretty definite period, and when delayed beyond this time, it was properly a case for non-operative treatment; whereas, such treatment was entirely inapplicable to cases of non-union. For delayed union no cutting operation should be thought of until every other known means, and an abundance of time, have been expended.

The present fashion of treating fractures by plaster of Paris bandages led to deficient immobilization, or else to constriction at the seat of fracture. The author thought no dressing had ever been devised

for the treatment of fractures which so poorly accomplished the end in view; *i. e.*, immobilization without undue compression. Good results were obtained with these dressings; but their proper use required greater skill and experience than any other dressing. If plaster were applied before swelling occurred, it prevented the formation of the normal amount of callus, and in a certain number of cases, resulted in delayed union. If applied after the occurrence of swelling, the dressing soon ceased to immobilize the part, and so not infrequently caused delayed union.

The treatment advocated by Dr. Ridlon was that employed by Hugh Owen Thomas, and, in the words of that surgeon, consisted in "hammering, damming, depending, and fixing" the bones involved in the fracture.

The hammering may be done with or without an anæsthetic, and should not be repeated oftener than once in two weeks. Dr. Thomas at first made use of intermittent constriction, but in 1881 he employed continuous "damming," and resorted less to hammering. The constriction should be sufficient to cause abundant œdema, but not enough to cause pain, or interfere with the nutrition of the limb. The proper immobilization of the fracture is the most important element of treatment, and to do this the bones must be held without producing constriction at the seat of fracture, the muscles covering the part must be kept at rest by continuous fixed traction, and not nagged by elastic or intermittent traction, and the joints, which are moved by these muscles, must be absolutely locked. When there is a fracture of the bones of the leg, the knee and ankle must be locked, and it was on this account that he had modified the caliper splint of Thomas in the way already described. This objection applied with even greater force to the well-known splint of Dr. H. H. Smith, of Philadelphia.

DR. N. M. SHAFFER said his experience with ununited fracture dated back to 1876, when he saw in consultation an ununited fracture at the junction of the upper with the middle third of the femur. The injury had been received about three months previous, and there was much overlapping. He applied pressure by means of a felt co-aptation splint, and a traction apparatus, which allowed of the patient walking about with crutches. After a few weeks he walked on the limb with the traction splint, and in about three months the parts were united. He had had since then three other cases of fracture of the shaft of the femur, which he had treated in the same manner, and with equally good results. He thought that the method advocated in the paper was not necessary, and that as much could be done by securing apposition of the fragments, direct pressure at the point of fracture by means of a co-aptation splint, and the maintenance of the good position by the use of some traction apparatus. Change of climate also exerted a strong influence.

DR. A. B. JUDSON thought that cases of this kind, which had been treated by Dr. H. H. Smith, as well as some treated by the late Dr. E. D. Hudson, of this city, showed that the desired result could be obtained by the use of an apparatus which would permit the patient to walk around. Union was brought about under these circumstances probably by the friction, irritation, and congestion of the parts caused by the walking. Dr. Thomas' experience seemed to confirm this view, but the treatment by hammering he considered cruel. He was reminded of a suit for malpractice which was brought against Dr. Garcelon, of Maine, on account of an ununited fracture. In order

to excite sympathy in his behalf, the patient had applied a rough home-made apparatus, and had gone about the country in this way for sometime previous to the trial; but when the case came to trial, it was found that union had taken place.

DR. S. KETCH spoke of a boy who had received a compound fracture of the femur, which by injudicious treatment had failed to unite. When he saw the case in consultation, the boy was suffering great pain, and partly with a view to relieving this he applied a long traction splint without any co-aptation splint. The pain was almost immediately relieved, and the local condition also improved, so that within a month he was walking about on a hip splint.

DR. R. H. SAYRE related his experience with a case of delayed union in a fracture of the leg, occurring in a syphilitic subject, who was also in the early stages of locomotor ataxia. He was a very heavy man, and there was a marked angular deformity. After irritating the ends of the bones by rather severe manipulation with the hands, he applied plaster of Paris, and renewed it from time to time for six or eight months. During the first month he used crutches, but after this he was able to put the feet to the ground. At present, there is firm union of both bones. In this case there was much œdema without the use of a constricting band, for the patient's heart and kidneys were in a bad condition. Dr. Sayre thought that the hammering which the weight of the body produced upon the parts, after they have been placed in position, was more efficacious than a hammering of the sides of the fragments by means of a mallet. He thought it quite possible that too prolonged traction in cases of fracture of the femur might be responsible for some of these cases of non-union, for, it was not improbable that more traction was often exerted than was sufficient to overcome the already tired muscles, and as a result the bones were drawn too far apart to secure good union. He could not accept Dr. Ridlon's criticisms upon the use of plaster of Paris as a surgical dressing for fractures in general. If properly applied immediately after an injury, and after the parts were in proper position, they could be immobilized, and there would be very little swelling. The swelling was often due to obstruction of the circulation by the abnormal position of the bones.

DR. W. R. TOWNSEND spoke of a case which he had presented to the Surgical Section last year. The boy had fractured his femur, at Seabright, and notwithstanding skillful surgical treatment, there was no union after three months. He was brought to the Hospital for Ruptured and Crippled in this city, and a long traction splint was applied, which enabled him to go about. Walking around, together with the change of air, brought about speedy improvement, and after eight weeks, there was good union, and the apparatus was removed.

DR. C. A. POWERS said that a considerable number of cases of delayed union in fractured legs were yearly referred to him, at the Out-Patient Department of the New York Hospital, after their discharge from the wards. It was his invariable custom to have them walk about with a light plaster of Paris splint, and his results had been uniformly good. He had certainly treated, during the last year, six or eight cases, and in no instance had it been necessary for them to return to the In-Door Department on account of failure to secure good union. He was familiar with the history of Dr. Ridlon's second case, who was originally a patient in the New York Hospital. He believed that had this patient walked about without

the application of a brace, he would most probably have obtained good union in about the same length of time. The delayed union in this case was distinctly due to the severe nature of the compound fracture, this being followed by suppuration and some necrosis. He thought the means advised by Dr. Ridlon excellent, yet braces of this kind were not easily within the reach of many country practitioners, and more convenient means would accomplish the same results. He could not understand Dr. Ridlon's strictures upon the use of plaster of Paris, and he heartily endorsed what Dr. Sayre had said on this subject. If deprived of the use of plaster of Paris, he would feel that he had lost the most valuable means of all means at his command for treating fractures of the leg or arm. Out of five or six hundred cases of fracture of the upper extremity, which had been under his care, there had been very few cases of delayed union which had not yielded to rubbing of the ends of the bone, blistering, or very light hammering, the latter not sufficient to cause pain. In two or three obstinate cases, the ends of the bones had been brilled; the patients were treated as out-patients, and with invariably good results. He did not remember that he had ever been obliged to refer a patient to the hospital for operative treatment. He thought that similarly good results would follow this plan of treatment in most cases of delayed union in fractures of the leg.

DR. RIDLON, in closing the discussion, said that he thought the application of a snug plaster, or other bandage, lessened the amount of swelling, and that the less swelling, the less the callus, and *vice versa*. There was no question about the efficiency of plaster of Paris when skillfully applied, but it was not always so applied, and he had seen very unpleasant results from its use. As regards the effect upon these cases, of walking about, he would say that his first patient walked around his room, with a well adapted plaster splint, for two and a half months after the operation, without any gain in solidification; whereas, three days after beginning the treatment which he had described, the patient was able to walk some distance. The second patient had been walking around in the hospital with crutches, and after leaving there, continued to do so for about three months more before coming under his care. Under the new treatment, he was able to dispense with one crutch at once, and with the other very soon afterward, and at the end of eight weeks, returned to his work. These two cases were of course not sufficient basis for any definite conclusions, but they were presented for the purpose of illustrating a plan of treatment not very commonly known or employed here.

DR. ROYAL WHITMAN presented a case of fracture of the neck of the femur, in a child, aged seven years.

UNIFORM NOMENCLATURE IN ORTHOPEDIC SURGERY.

DR. W. R. TOWNSEND took this for the theme of his paper, which was as follows:

The object of writing this short paper is to elicit a discussion from the members of the Orthopedic Section of the Academy of Medicine upon a subject to which, of late, little attention seems to have been paid, yet to which much attention and time must be given, unless one is continually provided with a dictionary when reading; for, to read intelligently the medical literature of to-day, a study of etymology and synonyms is all-important, and even with this knowledge, we may still often be in doubt as to what disease is referred to, as some authors describe some-

what different affections under the same name. The Spondylitis of medicine is essentially different from the Spondylitis of surgery. The former is a rheumatoid peri-arthritis, affecting chiefly the spinous processes and lateral masses, the inflammation encroaching on the foramina of exit and producing various painful neuralgias; the latter is Pott's disease, or tubercular osteitis of the vertebræ, etc.

Many reasons exist for this confusion and multiplication of terms. Many diseases were so inaccurately described at first, that the name suggested could easily be improved upon, and later writers have done so, with a view of simplifying matters, and have thus increased our list of synonyms; again, popular terms or names that could be easily understood by the laity, have been introduced from time to time, until in some cases such terms have almost entirely superseded the more exact and scientific ones. Increased knowledge, such as the discovery of the tubercle bacillus, has caused us to classify some diseases as tubercular, just as we classify others as syphilitic, or malarial, and this list will probably be still further increased.

It is not my purpose to take any disease and weary you with a list of the different names it has gone by from the earliest times to date, but I will simply give several examples.

In a recent work on Orthopedic Surgery, the same morbid process or disease, when it effects the spine, is known as Pott's disease; when affecting the hip or sacro-iliac joints, as hip disease, or sacro-iliac disease; when affecting the knee, as tumor albus, and in the case of the other joints, simply as ankle joint or tarsal disease, etc. Of course, all, or nearly all the other terms in common use, are referred to, but it is under the above headings that the disease is described.

The hospital reports of the Roosevelt, New York, St. Luke's, Mt. Sinai, the Children's Hospital, Boston, the New York Orthopedic, and the Hospital for the Relief of the Ruptured and Crippled, show this same variety of expression. In them, we read of hip disease, hip joint disease, tuberculosis of the hip, tuberculosis of the hip joint, morbus cœxæ, chronic disease of the hip joint, and osteitis of the femur. In other words, in seven different reports, we have seven different names for the same disease. Other examples could easily be cited.

This multiplication of terms leads to confusion and much difficulty in actually arriving at a true idea of the relative frequency of any one disease, unless we thoroughly appreciate these facts; for, who can say that the disease was of the same nature, when on one page we read of tuberculosis, on the next of caries, and the next of osteitis of the tarsus.

Much of this variety and confusion of terms could easily be avoided.

This problem, although presenting difficulties, seems to me ought to be discussed. Its solution depends simply upon the profession agreeing upon certain terms to describe certain diseases, and then strictly adhering to them. More care in diagnosis will result; a synovitis or arthritis will not be classified as an osteitis, and all the different diseases of the knee, for instance, will not be included under the terms white swelling, or knee disease.

DR. KETCH offered his congratulations to the author for the novel and interesting subject upon which he had written. He thought, however, that it would be very difficult to find one name which would cover the various conditions of disease found at the hip joint. He agreed with the author of the paper that such terms as "tumor albus," and similar expressions, should be discarded.

DR. H. W. BERG thought pathology was at present too vague to admit of the use of a more exact nomenclature.

DR. R. H. SAYRE reminded the members that Dr. J. W. S. Gouley had devoted much time and labor in the preparation of an exhaustive work on medical nomenclature and classification of diseases. In it were mentioned terms which were very curious, although etymologically correct, and the profession would be slow to adopt such expressions. For instance, castration is spoken of as orchiectomy.

DR. JUDSON was of the opinion that there was no likelihood of any one being led astray by the present nomenclature, and other authors besides Dr. Gouley had expended much labor upon similar works, which were of doubtful utility.

DR. TOWNSEND, in closing, said that his paper had been misunderstood, for no question of pathology was involved. He had simply deprecated the use of so many terms to express one and the same condition.

TUBERCULOUS JOINT DISEASE TREATED WITH KOCH'S LYMPH.

DR. N. M. SHAFFER presented, on behalf of Dr. T. Halsted Myers, a report of the following cases:

CASE I.—Girl, aged thirteen years. Hip joint disease had existed for three years, abscesses discharging more or less for two years and ten months. Moderate glandular enlargements existed all over the body.

December 15, 1890: Examination showed no deformity except shortening and muscular atrophy. The motion at the joint was very considerable, and no pain had been felt for months. Abscesses below the great trochanter discharged through six sinuses, several of them near together, surrounded by a dark purple areola, covering an area of about two by three inches. This patient received half a milligramme of the lymph at 3.30 P.M. No reaction was observed.

December 17: A second inoculation of half a milligramme was followed by a slight reaction, the temperature rising to 101° . No change was noticed in the condition of the joint. Two of the sinuses were closed, and the discharge from the other was unchanged.

December 19: The purple areola has disappeared, leaving only little red islands about each sinus. The skin had become dry and scaling, where it was previously necrotic.

CASE II.—Boy, aged six years. Had had hip disease twenty-six months; abscess discharging intermittently for four months.

December 15: Half a milligramme of the lymph was injected at 3.30 P.M. Examination at that time, showed the limb to be flexed at 155° , abducted 15° , rotated outward 30° . There was shortening and atrophy, and a sinus was about to open again. The limb was moderately sensitive, and there was less than ten degrees of flexion. Reaction came on in ten hours. Temperature at that time 101.4° ; night-cries began anew, and the joint became very painful. On the following morning this was very evident, and there was almost no motion in the joint. Flexion and abduction were also increased, and the inguinal and cervical glands seemed larger. With the fall in temperature, the pain and deformity also diminished markedly, but not entirely, and the original amount of motion was restored.

December 18: A second inoculation of half a milligramme was given, and again the temperature rose, and the joint became acutely sensitive and more deformed, and motion was practically *nil*. This was

the condition at noon. The site of the sinus was no longer purple, and was covered by dry, scaly skin.

DR. SHAFFER also presented a report of some of his cases which had been treated according to this method. (See *Medical News*, December 27, 1890.)

DR. R. H. SAYRE asked if much of the increase of pain noticed in one of the cases might not be due to the removal of the apparatus.

DR. SHAFFER replied that this patient had previously been in bed for days at a time, without the apparatus, and yet had not experienced any such pain as was present after the inoculation.

DR. BERG thought that some of the phenomena observed might be referable to the fever which was present, just as an increase in the joint symptoms was sometimes noticed during the progress of the acute exanthemata.

DR. SHAFFER said that he had seen cases of joint disease suffer no exacerbation during the course of a typhoid fever, in which the temperature frequently reached 105° , and scarlatina also often failed to affect the condition of a diseased joint. Measles, on the contrary, was particularly prone to increase the severity of the joint symptoms. Hence, there was something more than fever necessary to account for the influence of certain diseases on the condition of a joint; and in one of Dr. Myers' cases, there was no fever, and yet marked improvement followed the inoculation.

MEDICAL SOCIETY OF BERKS COUNTY.

THE Medical Society of Berks county met at the Board of Trade rooms, January 13. The following officers were elected:

President, Dr. W. Muray Weidman, of Reading; Vice-President, Dr. D. Webster Kupp, of Gibralter; Treasurer, Dr. A. S. Raudentush, of Reading; Recording Secretary, Dr. C. W. Bachman, of Reading; Corresponding Secretary, Dr. Israel Cleaver, of Reading; Censors, Drs. C. G. Loose, C. S. Ermontrout and F. W. Frankhauser, all of Reading; Curator, Dr. C. L. Kurtz.

Dr. Deaver, of the University of Pennsylvania, read a very interesting paper on Treatment of Injuries of the Brain.

In the evening the annual banquet of the Society was held at the Mineral Springs Hotel. Prof. W. Pepper, of the University of Pennsylvania; Theo. Parvin, of Jefferson Medical College; Drs. Deaver, of the University; Halberstadt, of Pottsville; Craig, of Columbia, President of the State Medical Society, were present to assist in making the banquet interesting and amusing. About thirty-eight covers were laid. All did justice to the banquet.

At the next meeting of the Society, in February, there will be a discussion of the treatment of tuberculosis, as given by Koch. As a number of the members are very much interested, there is likely to be a large attendance.

A CASE OF POST MORTEM, AT THE READING HOSPITAL.

J. M., aged seventy-six years, being admitted two days prior to death; as one of those unusual accidents of a soft catheter breaking in the urethra had happened, the operation of lythotomy was performed, but to no effect, as the patient died next day. The post mortem revealed the cavity of the bladder diminished, the walls at least one-half inch in thickness; walls pocketed and contained sixteen calculi, ranging in size from a hazle-nut to a large shell-bark; prostate enlarged; ureters dilated to the size of a large

finger; pelvices of both kidneys were filled with pus, showing that the man had been a sufferer of pyelonephritis, chronic cystitis, stone in the bladder, etc. No history could be obtained as to how long the man had been a sufferer.

The Nooten wing of the Reading Hospital is rapidly nearing completion, and adds beauty to the building, as well as being useful to suffering humanity.

The prevailing diseases at present are: Measles, in an epidemic form; chicken-pox; and a number of cases of diphtheria have been reported.

Dr. M. L. Bertolette, of St. Joseph's Hospital, has ordered some of Prof. Koch's lymph.

F. W. FRANKHAUSER.

The Polyclinic.

JEFFERSON MEDICAL COLLEGE.

Reported by J. E. TAYLOR, M.D.

IN a case of epilepsy, with the history of frequent attacks of convulsions, with total loss of consciousness: The patient attributed these attacks to an injury received from a fall that occurred six years ago. The convulsions were preceded by vertigo and tremor in the right arm and leg, afterward becoming general. The following treatment was advised:

The inhalation of the nitrite of amyl, to ward off an attack, and the following prescription, viz.:

R.—Potassii iodidi..... gr. x.
Potassii bromid..... " x.
Ammonii brom..... " x.
Tr. belladonnæ..... gtt. ij.
Syr. zingiberis..... f3j.

M.—Sig. Ter die.

A man, aged forty years, presented himself at the clinic. He had previously had chills and fever. He presented these symptoms: Four months ago began to have severe pain in the abdomen; one month ago the attacks began to be more severe in character, followed by diarrhoea, swelling of the abdomen, and shortness of breath; slight pre-tibial cedema; tongue was large, heavily coated, pale and flabby, showing the marks of the teeth; liver somewhat hardened and enlarged; at times very considerable tenderness over the abdomen, with occasional bloody fecal evacuations. The following treatment was advised: Keep the bowels in check with

R.—Bismuth subnit... gr. x.
Acid. carbolic..... gtt. ss.

M.—S. Every two hours.

R.—Cocainæ..... ℥j.
Ung. belladonnæ..... f3j.

M.—S. Apply over the abdomen.

Opium, in suppository. The diet to consist of milk, cornstarch, etc. No meat.

The following treatment was ordered in a case of emphysema complicated with bronchitis:

R.—Ammonii iodidi..... gr. x.
Ammonii chloridi..... gr. x.
Syr. tolu.,
Mucil. acaciæ..... āā f3j.

M.—S. Three times a day.

In a case of pleuritic effusion in a man, aged twenty-five years; no history of malaria or rheumatism, but had had an attack of pleurisy two weeks prior to admission, the pleurisy was on the left side. Patient complained of pain on the left side, of a week's duration, followed by marked shortness of breath; bulg-

ing of the left nipple was observed; there was absolute dullness on percussion, from the second rib down, with tympanitic resonance at the upper part of the left lung, both anteriorly and posteriorly, absent fremitus. Cardiac dullness an inch or more to the right of the sternum, showing marked displacement of the heart; the temperature was normal. The following treatment was prescribed:

R.—Potassii acetatis..... ℥j.
Tr. ferri chloridi..... gtt. x.
Acid. acetici dilu.,
Syr. limonis..... āā f3j.

M.—S. In water every four hours.

The following was given in a case of tertiary syphilis:

R.—Hydrargyri chlor. corrosiv. gr. ʒv.
Potassii iodidi..... gr. v.
Syr. sarsaparillæ..... f3j.

M.—S. ter die.

A case of chlorosis was presented at a recent clinic. The patient, a girl, sixteen years of age, had these symptoms: Very anæmic; severe frontal headache; poor appetite; constipation; pale tongue; palpitation; shortness of breath; a murmur was perceived at the left base of the heart, also heard in the carotids. The following treatment was prescribed:

R.—Aloin..... gr. ʒ.
Ext. hyoscyami..... gr. j.
Rhei..... gr. ij.
Olei terebinth..... gtt. j.

M.—Ft. in pil.

R.—Acid. phosphor. dilu..... f3j.
Tr. gentian. comp..... f3iss.
Elix. simplicis..... f3ss.

M.—S. A teaspoonful before meals.

In a case of lead poisoning, the following treatment was administered:

R.—Potassii iodidi..... gr. x.
S. Three times daily.

R.—Magnesii sulphat..... f3j.
Acid. sulphuric. dilu..... gtt. ij.
Syr. zingiberis,
Aque dest. āā ad f3ss.

M.—S. Every hour.

This treatment was followed by most marked improvement.

The following prescription was given in a case of pleurisy:

R.—Potassii acetatis..... gr. xv.
Morphinæ acetat..... gr. ʒv.

M.—S. Take every three hours.

A man, aged fifty-five years, was brought before the class presenting these symptoms: Shortness of breath on exertion; complains of defective vision in the right eye. On making an eye examination, it was found that there had been retinal hemorrhage. The heart was overacting; vessels prominent; the urine was normal. A diagnosis was made of atheroma of the vessels with overacting heart. The following treatment was advised: Laxatives, vegetable diet, the patient instructed to do nothing that would likely over-exert him.

R.—Tr. aconiti..... gtt. iij.
S. At night.

R.—Ac. phosphor. dilu..... gtt. xx.
S. Three times a day.

A case of catarrhal pneumonia was presented at the clinic with these symptoms: Frequent pulse and

respiration; high temperature; slight cough; a few days prior to admission the patient had a chill; dullness was noted over the whole anterior and posterior parts of the right lung; coarse, moist rales; harsh respiration; bronchial breathing near the angle of the right scapula; there was diarrhoea; heavily coated tongue, red at the tip; no eruption; abdomen not tender. The following treatment was given:

R.—Ammonii chloridi..... gr. x.
Potassii acetatis..... gr. x.
Tr. digitalis..... ℥ v.
Aqua dest..... f 3j.

M.—S. Every four hours.

In a case of marked hypertrophy of the heart, in which the patient had attacks of shortness of breath, was ordered the following:

R.—Barii chlor..... gr. ʒss.
Ext. belladonnæ..... gr. ʒss.

M.—S. Three times a day.

Sp. ammon. aromat. for the attacks of shortness of breath.

In a case of compound comminuted fracture of the leg, in which there was great laceration and destruction of tissue, complicating the important vessels and nerves of the part, an amputation was performed at the upper third of the leg.

The following was recommended as an excellent application in a case of simple "sore throat:"

R.—Zinci sulphat..... gr. ijss.
Aqua rosæ..... f 3j.

M.—S. Use as a spray, three times daily.

A man, aged forty years, was presented at the clinic with erysipelas; the trouble had existed for three days. He was treated as follows: Hydrochlorate of pilocarpine, gr. ⅙, was given hypodermically, followed in four hours by R.—Ext. jaborandi fl., gtt. xx, every four hours, with tonic doses of quinine.

In a case of basilar meningitis, occurring in a boy, sixteen years of age, presenting these symptoms: Complaints of sore throat, the tonsils were swollen, and the throat inflamed; head drawn back; tenderness at the back of the neck, with rigidity of the muscles to the extent of opisthotonos; pupils slightly dilated, and react to light; reflexes were preserved; some fever; no vomiting; no eruption; the patient had been placed on bromide of potassium, grs. xx, which was reduced to gr. x every third hour, with a very marked beneficial result.

Prof. Parvin gave the following treatment in a case of amenorrhoea, complicated with malaria, viz.:

R.—Tr. ferri chloridi..... ℥ xv.
Quinin. sulph..... gr. v.
Tr. capsici..... ℥ x.
Zinci sulphat..... gr. ij.

M.—S. Every four hours.

Dr. Stelwagon prescribed the following in a case of eczema squamosum:

R.—Acid. boracici..... gr. xv.
Glycerini,
Alcohol..... āā ℥ v.
Thymol..... gr. ¼.

M.—Ft. lotio.

Sig. To be rubbed on.

Dr. Stelwagon, in a case of epithelioma, treated it in the following manner: By first curetting the surface of the ulcer, and especially the edges, for he said to be successful this must be done thoroughly; then caustic potash was applied. Afterward the application

of dilute acetic acid or vinegar, to counteract somewhat the caustic effects of the potash.

Dr. Stelwagon, in a case of psoriasis, treated it as follows:

R.—Liq. potassii arsenitis..... gtt. ij—v.
S. Ter die.

R.—Ung. picis liquidæ.... f 3j—ijj.
Ung. simplicis..... f 3j.

M.—S. To be rubbed on daily.

The patient was instructed to take baths, to which was added carbonate of soda f 3vj—viij.

Prof. Brinton, in treating a case of cystitis, advised that the bladder be washed out with warm water to rid it of the accumulated mucus, and then inject 1 per cent. creolin solution.

Dr. Rex presented a boy at the clinic, who had received an injury on the head; subsequent to the injury, these symptoms presented themselves: At intervals the patient has irregular headaches; at times trembling and restlessness; frequently wakens up out of sleep in a frightened condition; at times the patient becomes unconscious. He was given this prescription:

R.—Sodii bromidi..... gr. x.
Chloral hydrat..... gr. iij.
Syr. tolu..... ℥ xx.
Syr. simplicis..... q. s. ad f 3j.

M.—S. Take at night.

Dr. J. Solis-Cohen, at a recent clinic, presented a case of unusual interest, particularly so as regards the treatment. The patient, a man, twenty-two years of age, had for some time complained of soreness of the throat, and hoarseness, which finally resulted in almost complete loss of the voice (aphonia); he suffered from paroxysmal attacks of suffocation, which were relieved by inhalations of chloroform, and the administration of emetics. The trouble apparently was due to a growth of some kind, the nature of which there was no opportunity afforded to examine into. For the relief of the difficult breathing, as well as the safety of the patient, it was decided to do a tracheotomy. Preparatory to the operation the patient was given two injections of ¼ gr. of cocaine on either side of the middle line of the neck; previous to this the patient had taken some whisky and water, so as to obviate the depressing effects of the cocaine. The operation consisted in making an incision from the cricoid cartilage downward to the extent of two inches, then dividing the fasciæ down to the trachea; the fasciæ and muscles were pushed aside and held with retractors. An incision was then made in the trachea below the cricoid cartilage, and a platinum tube inserted; the unique part of the operation being that the patient was perfectly conscious, and responded to questions asked by the operator. The patient did not exhibit the least degree of nervousness.

MEDICO-CHIRURGICAL HOSPITAL.

IN a case of infantile eczema, Shoemaker advised the following plan of treatment: Place child on restricted diet—preferably milk. Avoid use of solid foods and all irritating substances. Clean out the intestinal tract with calomel, gr. j, once a week, followed by a saline—carbonate of magnesia. After feeding give pepsin, gr. iij, and bismuth subnit., gr. iij, suspended in glycerine, f 3ss, to promote digestion. Bathe integument with sweet oil until incrustation has been removed, then apply the following ointment:

R.—Sulphur subl. 3j.
 Camphoræ..... gr. x.
 Ol. anthemidis gtt. j.
 Creasoti..... gtt. v.
 Ung. aq. rosæ..... ʒss.
 Ung. zinci ox. benz. 3j.

M.—Ft. ung.

After the eruption and incrustation have been removed by treatment, the integument will have an erythematous appearance. To restore the skin to its natural hue the following should be given internally:

R.—Sulphur subl. gr. j.
 Ext. malti, fl. 3j.

S. Three times a day.

This will give tone to the skin, stimulate the glandular system generally, especially the liver. After the general health of the child has improved, more nutritious diet can be given, such as oyster soups, beef tea, etc.

In a case of pustular eczema affecting the flexor surfaces of the lower limbs, particularly the inner aspect of the thighs, Shoemaker prescribed as follows:

Internally:

R.—Syr. acidi hydriodici..... fʒij.
 Glycerini..... fʒij.

M.—S. fʒj t. i. d.

Externally:

R.—Ol. morrhuae,
 Ol. cadini.

M.—S. Rub well into affected parts thrice daily.

Relative to the treatment of asthma, Prof. Anders remarked as follows:

First break the attack. Give morphine, gr. $\frac{1}{6}$ – $\frac{1}{4}$, but once. If this will not do it, give inhalations of chloroform until relief is obtained. If the attack is not severe, give tr. lobelia, gtt. v–x, every fifteen or thirty minutes, until the attack is over. Alcoholic stimulants, in the form of hot toddy, give relief in some cases. It is difficult to predict what effect an internal remedy will have in this disease. Chloral, given in large doses, gives relief to some. The patient should guard against "taking cold." Clothe warmly, take moderate, but persistent, open-air exercise. To escape nocturnal attacks, he should eat a light supper. If the attacks are due to disordered digestion, the diet must be regulated. To relieve the catarrhal condition of the bronchial mucous membrane, HI or KI should be given. To preserve the integrity of the lung tissue, give:

R.—Liq. potassii arsenitis m. v.
 Potassii iodidi..... gr. v.
 Syr. sarzæ comp..... 3j.

M.—S. Take after meals.

Prof. Woodbury showed the class a new drug, recently prepared in this city. It is formed by treating the sulphate of cinchonine with a solution of potassium iodide. It contains about 50 per cent. of iodine, is reddish in color, odorless, and almost tasteless. It has been given the name, iodosulphate of cinchonine. The professor thinks it will prove a good internal antiseptic in the treatment of phthisis. He also suggested its use externally in the treatment of lupus vulgaris.

DR. J. B. CASSADY, of Burlington, N. J., was recently married to Miss Agnes Ashcraft, of New York City.

THE PARASITIC ORIGIN OF CANCER.—The sporozoa are parasites that are widely distributed. We find them in all animals, from man down to the infusoria. Some of them give rise to epidemics of a grave character in animals, as the coccidium in the rabbit—quite a common disease in France, but rarely seen in this country. The sarcosporidium gives rise to an epizootic in sheep and poultry. A number of fish die annually of disease produced by the presence of the myxosporidium. And the organism which has caused such ravages among the silk-worms of France, producing the *maladie de la pébrine*, is the microsporidium.

One of the most characteristic features of these organisms is their seat within the epithelial cells; the nucleus of the containing cell being pressed aside by the parasite. The nuclei of the coccidia are situated sometimes in the center and sometimes at the edge of the protoplasmic mass. The retraction of the latter gives the organism the appearance of a cell in a stage of degeneration, as has so often been attributed to it hitherto. This retraction gives the affected epidermis its cribriform appearance. When the number of these organisms is small, they may not be seen at all in many sections. They are, however, easy to find in the scrapings from the cut surface of the diseased epithelium. Their size is about double or treble that of the adjacent cells, but occasionally they may be enormous, their diameters being nearly equal to one-third of the thickness of the rete malpighii. They are to be found in all the layers of the epidermic portion of the skin. They are more numerous near the first row of the cells of the rete; at this point they are rarely encysted, but appear usually as a mass of nucleated protoplasm, more or less retracted, in the center of a clear space. Higher, the corpuscles are more frequently encysted, and usually larger. In the horny layer they are usually flattened out, and hence are less apparent.

These corpuscles are usually first seen near a nucleus, but they may be some little distance off. They are not found in direct contact with the contents of the cell, but are surrounded by a clear zone, as if they were in the middle of a space hollowed out of the interior of the cell. There is no lining membrane to this cavity, the walls of the cyst-like space consisting merely of a somewhat thickened layer of the adjacent protoplasm. This bright border, perhaps due to shrinkage of the protoplasm, serves to distinguish them readily from the nuclei of the cell. Having emigrated from the nucleus, they appear now as irregular or flask-shaped masses of protoplasm still without a nucleus attaining the size of a diameter of fifteen or more micromillimeters. They do not have any well-defined cell wall. The organism enters now into the free stages of its existence, and may be found between the cells of the cancer or in the ducts of the mammary gland. It soon enters the cancer cells, however, apparently to obtain sustenance from their nuclei. We see now large, irregular, protoplasm-like organism in the protoplasm of the epithelial cell, and separated from it by the bright zone. It may have already attached itself to a nucleus, which it soon surrounds and encloses into its own substance, so that the nucleus of the cancer cell is now embedded in the protoplasm of the parasite. Changes soon begin now to appear in the protoplasm of the cancer cell; its peripheral portion becomes pointed, and takes staining feebly and finally disappears altogether or is pushed aside, leaving the parasite in undisturbed possession of its nucleus.

—Warren, *Boston Med. and Surg. Jour.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

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POISONING IN DYEING ESTABLISHMENTS.

SOME weeks ago there was reported a case of poisoning at one of the Philadelphia dyeing establishments. Several of the employes entered an apartment that had not been opened for some time, and were overcome by the gases that had collected in the room. None of the cases proved fatal, and all returned to their work on the next day. Being curious to know what agent produced the alarming symptoms, a representative of this journal was directed to visit the works and make an investigation. The proprietors of one of the most extensive dye and print works in the city opened their doors to us, and offered every facility for an examination. We find that these attacks are by no means infrequent; they are not considered dangerous, and in no case have they resulted in anything more serious than a few hours detention from work. There is some uncertainty as to the toxic agent. In the preparation of the dye in question, ferrocyanide of potassium is first treated with sulphuric acid, precipitating the base, and leaving the iron and hydrocyanic acid in solution. There cannot be a large amount of the acid present, as the men who prepare it have their hands covered with it, and experience no bad results. This liquid is then mixed with aniline oil. Starch is finally added, to bring the mass to a proper consistency for printing. It is only when this has been done, and the printing is under way, that the bad effects are shown. The stuff is not heated, but the process goes on in a room which is quite warm and the air charged with steam. Those who inhale the gases arising, sometimes become suddenly unconscious, and fall back. Their bodies become rigid, their lips and noses dusky or bluish, the skin cool. They are immediately carried into the open air, and stimulants given as soon as they can swallow. In a few moments the attack passes off, the patient often working as if in a convulsion, as he comes out of it. A severe headache remains, incapacitating him from work for the remainder of the day. This is the description given

by the proprietors. The attacks are not infrequent, and are not regarded as dangerous. At the same time, measures have been taken to prevent them, by keeping the air of the rooms pure by means of steam extracting fans.

The attacks were at first attributed to the aniline; but the color differs radically from the deep hue seen so frequently since acetanilide has come into general use; a color that does not pass off so quickly.

Wood gives the following symptoms as resulting from hydrocyanic acid: "The symptoms come on suddenly. In a moment or two the individual falls to the ground insensible and convulsed, the respirations arrested or occurring at long intervals, the eyes salient, the pupils dilated, the mouth covered with bloody froth. If less than a fatal dose be taken, deep insensibility, tetanic or clonic convulsions, dilated pupils, a bloated countenance, cyanosed surface, set jaws, and irregular respiration, constitute the chief symptoms. The breathing is mostly convulsive, with deep, forcible expirations, but in some cases it has been stertorous. After small toxic, but not lethal doses of prussic acid, giddiness, lightness of the head, nausea, a quick pulse, and muscular weakness, are the chief symptoms." The description given above approximates this sufficiently to render it probable that the toxic agent is hydrocyanic acid or a derivative. Wood does not mention headache as a symptom on regaining consciousness; but as he relies mainly upon experiments on animals, this symptom may have been overlooked. At the works, it is invariably present.

If prussic acid be in truth the cause of these seizures, it is certainly remarkable that so deadly an agent, one working with such appalling rapidity, could be employed in a form capable of producing such symptoms as those described, in numerous cases, extending over a series of years, without causing death. Nor is it in accordance with the general belief regarding the danger of handling this acid, that no harm results to those whose hands are constantly wet or stained with it.

We are further informed by the employes that no ulterior effect for good or ill has been noted in those who have for years been exposed to these attacks. No difference exists between sober men, drinking men, or drunken men, as regards liability to the attacks. The liability does not become greater or less in time. If some learn to avoid the attacks by using precautions, others would probably go through them willingly, for the sake of the whiskey, and the day's rest following. We believe this is a fair estimate of the very slight importance in which the matter is regarded by the employes. No observation has been made as to the effect of these cyanogen fumes upon tuberculosis; as none of those exposed happen to be consumptives.

DR. SPENCER MORRIS has returned to Philadelphia for the winter, and is drilling the Medico-Chirurgical students in physical diagnosis and hygiene. He is exceedingly popular with the class, and very successful as a teacher.

Annotations.

WE learn with regret of the retirement from further study of animal diseases of Dr. Frank S. Billings, of Chicago. Dr. Billings is the model investigator, ambitious, self-sacrificing, eager for knowledge, and has brought to his investigations the best qualities for which American investigators have been distinguished. His retirement will be a real loss to the country.

IN a carefully-prepared paper, read before the Sanitary Convention at Vicksburg, the proceedings of which are published, Dr. Baker gave official statistics and evidence which he summarized as follows: "The record of the great saving of human life and health in Michigan in recent years is one to which, it seems to me, the State and local boards of health in Michigan can justly 'point with pride.' It is a record of the saving of over one hundred lives per year from small pox, four hundred lives per year saved from death by scarlet fever, and nearly six hundred lives per year saved from death by diphtheria—an aggregate of eleven hundred lives per year, or three lives per day, saved from these three diseases. This is a record which we ask to have examined, and which we are willing to have compared with that of the man who 'made two blades of grass grow where only one grew before.'"

Letters to the Editor.

MOTOR PARESIS FOLLOWING ETHER INJECTIONS.

I INJECTED 30 minims of Squibb's ether into the forearm of a patient in collapse, and whiskey afterward, and am accused by a physician in another town of causing a loss of motion, which now exists, in the hand and forearm.

The patient belonged to another physician, and I was called in his absence.

The next day it was discovered that the power to use the arm was gone, and now, although improved somewhat, the hand is useless.

I am on good terms with the patient, and there is no suit going to arise; but I am being injured in my practice by the report which has spread.

Now, if an injection of ether can injure a nerve or cause such trouble, the profession should know it; and I want to know it also, so as to be on my guard.

W. W. STYLES, M.D.

ESSEX, VT.

[We have never witnessed or heard of such an accident. *A priori*, it would seem highly improbable that a diffusible stimulant like ether could exert any such a permanent paralyzing effect. The hydrated ethyl oxide is well known to act as a motor and sensory paralyzant when ingested in large quantities, but all the effects pass off in a few hours, unless the dose is repeated. Cold has a like effect on some superficial nerves, especially the facial, and the resultant paralysis may continue for an indefinite period; but the use of counter-irritants, sudorifics, and galvanism produces a speedy cure. It is probable that in the above case the cause of the paralysis is to be found in the affection, producing collapse, or in thrombosis from the enfeebled circulation. At any rate, were the paralysis to be surely due to the injection,

considering the imminent danger of the patient that necessitated the ether injections, she must indeed be ungrateful if the life saved is not more prominent in her thoughts than the paralyzed hand.

—W. F. W.]

A CASE FOR DIAGNOSIS.

PATIENT, Mr. L.; thirty-seven years of age; married; family history, good. In August, 1873, met with an accident by which he was thrown fifteen feet into the air, from a wagon, and fell upon his back. A severe contusion over the sacrum was the principal lesion recognized at the time. Two weeks after the injury he appeared well, with the exception of an uncomfortable sense of fullness in the chest at times, and tenderness at place of injury, both of which symptoms have never entirely disappeared, being worse sometimes than others.

Two years later the stomach became intolerant to food, continuing so for a week or two at a time. During these attacks a spoonful of milk ingested would cause severe pain in the stomach and distressing dyspnoea. At the same time he was capable of considerable physical exertion without exhaustion, and without difficulty in breathing; nor did the forced abstinence from solid and liquid food produce any marked effect upon the system in general. The symptoms mentioned continued for three years, when they began to improve, and for five years prior to 1886 patient seemed to have recovered, with the exception of slight tenderness on pressure over sacrum.

In 1886 Mr. L. was again thrown from a wagon, this time falling on his feet, apparently unhurt. In twenty-four hours afterward he was seized with tonic spasms, the body being bent—generally backward, but sometimes forward, according to position—when seized. The convulsions have continued to the present time. Twenty or thirty may occur in a week, and they may be absent for two or three months. Patient is also subject to bloating, both at time of seizure and at other times. Bloating may disappear in a few minutes, or slowly. Appetite and health between seizures, good. A diarrhoea usually precedes the seizures, and rough walking or riding, and exhaustive work favor their appearance. During seizure patient is conscious, and suffers great pain. The heart becomes irregular, and an abnormal amount of pale urine is passed. Between the attacks, patient suffers sometimes from Cheyne-Stokes respiration, but does not present any mental peculiarity.

O. F. H.

Book Notices.

TEXT-BOOK OF HYGIENE: a comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Standpoint. By GEORGE H. ROHÉ, M.D. Second edition. Philadelphia, F. A. Davis, 1890. Svo., pp. 421. \$2.50.

When Dr. Rohé speaks, it is from the standpoint of common-sense added to a practical experience which is rare. In reading this book we are reminded of Prof. Krauth's definition of common sense, "The common mind of the common man applied to the common things of common life." Every matter which is related, even ever so indirectly, to hygiene is here treated of in a plain, sterling way which cannot fail to be understood by everyone. The author knows his ground thoroughly and brings his reader into an intimate knowledge of it. The book is rather meant

for the general reader than for the specialist, and yet we cannot help thinking that Dr. Rohé has had in view all along the members of his own profession, with a consciousness that his brother physicians are woefully lacking in practical information of this sort. Certainly those who are willing to learn will find here much that will be helpful in their practice. The book is well printed and illustrated, and, at the very reasonable price of publication, should be found in the library of every one interested in personal health and public hygiene.

Mechanical Obstruction in Diseases of the Uterus. By George F. Hulbert, M.D., of St. Louis, Mo.

The Breathing Movements in Relation to Voice Production. By G. Hudson Makuen, M.D., Philadelphia.

Transactions of the American Gynecological Society, Vol. 15, for the year 1890. Philadelphia: WM. J. DORNAN, 1890. In the 411 pages are to be found 21 papers.

The Medical Digest.

NOTES FROM "HOSPITAL GAZETTE."—It is said that the application of a solution of half an ounce of camphor in twelve ounces of turpentine, is efficient in controlling the hypersecretion of milk.

Campi's treatment for tape worm is as follows: Give over night five or six fluid drachms of castor oil. Next morning give early two drachms of thymol divided into twelve doses, one to be taken every fifteen minutes. After taking it the worm will be expelled entire.

Treatment of Gall Stones.—According to the *Bulletin Gen. de Therap.*, Lekarckie makes the assertion that pilocarpine is almost a specific in the treatment of gall stones. It relieves at once the pruritus of jaundice. The dose, hypodermically, is one-eighth of a grain twice a day.

Dr. Shuford (*St. Louis Med. and Surg. Jour.*) states that he has obtained good results by injecting the following in hemorrhoids:

R.—Glycerole of salicylic acid..... 5iv.
Glycerole of boracic acid..... 3iv.
Carbolic acid..... 3iij.

M.—Sig. Inject five to ten minims into each tumor.

Mr. Jonathan Hutchinson, for psoriasis, recommends:

R.—Acid, chrysophanic..... gr. x.
Liquor carbonis detergent..... ℥ x.
Hydrargyri ammon. chlorid..... gr. x.
Adipis benzoat..... 3j.

M.—Fiat unguentum.

At night the patient should wash the diseased surfaces free from all scales; then, standing before a fire, rub on the ointment, devoting, if possible, half an hour to the operation.

Dr. E. P. Hurd advises the following prescription for headaches of all kinds:

R.—Caffeini citrat.,
Ammonii. carb..... aa ʒj.
Elixir guaranæ..... 3j.

M.—Sig. 3j every hour until the pain is relieved.

The following pills have been recommended for dysmenorrhœa:

R.—Pulv. camphoræ..... gr. x.
Pulv. doveri..... gr. xx.
Ext. hyoscyami..... gr. x.

M.—Ft., pil. x.

Sig. Two pills every two hours till pain ceases.

LANE (*Lancet*) reports the case of a youth in whom epilepsy followed a depressed fracture produced by forceps at birth. The convulsions occurred first when he had reached the age of fourteen years, and for two years he continued to have fits at various intervals, which were sufficient to prevent his following any occupation. The depression was on the right side, extending from an inch behind the coronal suture to the same distance in front of the lambdoid. The left arm and leg were weaker than the right, and there was a marked difference in the clonus and knee reflexes which were more manifest on the left side. On operating, the bone was found to encroach slightly on the cranial cavity, and to be very vascular. The depressed portions were removed since the operation. The fits are milder and less frequent. The general nervous condition has greatly improved, so that the boy is now able to follow an occupation. The operator hopes that the fits, now slight and rare, will soon cease to recur.

THE PHONOGRAPH IN TESTING HEARING.—The thought that the phonograph would theoretically give the desired means of testing the hearing occurred to me long ago, as it has probably occurred to many others. It is, however, only recently that I have been able to use it in my own practice. In speaking in Berlin with Prof Trautmann upon this subject, he expressed the belief that it would prove useless in testing imperfect hearing, because of the necessity of using a tube in the ear to transmit the sound, and because of the slight volume of the sound. My own method of using the instrument is to dispense with all connection by tube with the patient's ear, measuring the distance in meters or feet at which the patient can repeat words previously spoken into a cylinder turning at a certain speed and then reproduced by the phonograph. The patient is placed at first beyond hearing distance, and then gradually brought nearer the instrument. I then record name of patient, date, and hearing record upon this same cylinder, either giving same to the patient, or keeping it carefully put away. In addition to this voice test, I test through a tube one meter long, the softest whisper which the patient can distinguish.—Fiske, *Western Med. Reporter*.

TREATMENT OF CANCER.—Such treatments of cancer as Chian turpentine and electricity should be largely limited to inoperable cases. In these their further trial can do no harm, and at least fulfil the humane purpose of adding the buoyant influences of hope to a doomed life.

Of other means of treatment there remain but the various means of local destruction of the new growth. In our day of dread of pain and horror of filthy wounds these means may be reduced to a few. In all cases admitting of it, free excision under all possible anti-septic precautions; where this is not possible, removal of diseased tissue by the curette and application of the actual cautery. I have not met with a case of carcinoma in which one or the other of these methods was not preferable to any other form of destructive local treatment, such as caustics, ligature, congelation, pressure, etc. I have seen very excellent work done by Kaposi, in epithelioma of the face, with caustics, but I find patients prefer to take an anæsthetic and undergo curetting and actual cauterization. It is cleaner, quicker and accompanied by less suffering. I trust it is no longer necessary to argue whether one means of local destruction is more curative than another. Whether an excision wound heals by first

intention, by granulation or cicatrization from caustics, makes no difference whatever in the effect upon the neoplasm, but it has considerable bearing upon the comfort and safety of the individual. In some instances where local removal cannot be complete, it is possible that extensive cicatrization presents a barrier to the rapid progress of the affection, but the cicatrization following the hot iron is certainly as effective as any and is often useful in certain palliative operations. When applicable the knife is the best remedy. The mortality of amputations of the penis at least is pretty clearly shown to be 10 per cent. greater when done with the thermo-cautery than when done by the knife.—Dunn, *Northwestern Lancet*.

OPERATING ON TUBERCULAR PERITONITIS.—Dr. J. F. W. Ross, writing in *The Canadian Practitioner* on this subject, says: As regards diagnosis, the fact must be emphasized that the main points were the irregular tympanitic sounds on percussion; the presence of free fluid in the abdomen, shown by the flattening of the front of the abdomen and bulging of the loins upon tension of the recti; the muffled sounds of resonance; the "far away" wave of fluctuation, giving one the idea of the presence of a thickened peritoneum between the fluid and the fingers; the high temperature, coated tongue, cachectic appearance. Of course, malignant disease of the peritoneum will produce just such symptoms. In cases where there is no collection of fluid and no thickening of the peritoneum, a diagnosis is not possible without an exploratory incision.

As to treatment, drainage was not at all necessary; a cure could be effected or life prolonged by removal of fluid, and that removal should be effected by exploratory incision, and not by dangerous trocar puncture—such incision clearing up the diagnosis, as well as relieving the patient. With the knife and the finger, the operator knows where he is going and what he finds. If pleuritic effusion, so often tubercular, can be cured by removal of the fluid, there is no reason why the same should not hold good in the abdomen.

SOME CAUSES OF DEATH IN DIPHTHERIA.—Death, if not due to the laryngeal asphyxia, may occur from extension of the membrane into the bronchi, from bronchitis, or from broncho-pneumonia. I once admitted a small girl into a surgical ward, who had swallowed some boiling water from a kettle. She had typical membrane on her tonsils and uvula, stridulous breathing, croupy cough, and a metallic tone of voice. There was some recession of the chest during inspiration in Harrison's sulcus, and in the supra-clavicular spaces. She soon got rid of the membrane in the throat, coughed up some from the larynx, and quickly recovered. That was membranous laryngitis, though it owned a traumatic origin.

Again, may catarrhal laryngitis ever be diphtherial? Although false membrane is *per se* the sign of diphtheria, yet, as mentioned above, we may get in epidemics a catarrhal affection of the fauces indisputably diphtherial, but stopping short of the formation of the diphtheritic false membrane; so we may probably get a catarrhal laryngitis only—but indisputably diphtherial—which does not develop any membrane whatever. In the cases analyzed for this paper, there was generally but little doubt as to their being genuinely diphtherial in their origin.

Five of them died of asphyxia from the presence of membrane in the larynx and trachea, 21 from its extension into the bronchi, 4 from bronchitis, and 1

from secondary pneumonia. In all but 2 of these cases tracheotomy was performed.

—Sympson, *The Practitioner*.

THE GENERAL PRACTITIONER'S TREATMENT OF CHRONIC ATROPHIC RHINITIS.—From the nature of the disease, and the abnormal secretions which it causes, one can easily understand that two features of treatment are indicated, viz.: cleanliness and stimulation—cleanliness so that there can be no irritation from the presence of scabs, and for the thorough application of medicines; and stimulation to counteract the passive inflammation, and to cause the mucous membrane to approximate more nearly the normal by filling it with wholesome blood.

Cleanliness does not mean promiscuous douching or spraying of the nose. The greatest care must be taken to remove every scab and particle of abnormal discharge. This can be done by the general practitioner readily enough, and his armamentarium need not be very extensive. A lamp—a student's lamp being preferable—a head mirror, a nose speculum, a small cotton applicator (a knitting-needle with one end roughened will answer) constituting an equipment, not elegant, but sufficient. The cost, exclusive of the lamp, is little enough, being less than \$4. Cotton, absorbent or borated, should be on hand, as well as plenty of Dobell's solution, or the following modification, which I like better:

R.—Sodii bicarbonatis,
Sodii baboratisāā ʒij.
Listerine or "katharmon"ʒss.
Aqua q. s. adʒviii.

M.—Sig. Nosewash.

—Loeb, *Medical News*.

SUPPURATIVE TONSILLITIS.—Dr. Clarence C. Rice thus sums up his conclusions on this subject.

I would like to state my belief in the following propositions:

1. That the tonsils, like other lymphoid tissue, are blood-elaborating glands.
2. That when they are in normal condition they probably perform a second function by reason of the large number of leucocytes contained in them, and this function, if not aggressive, at least possesses the power to prevent the entrance of pathogenic germs through the crypts of the tonsil.
3. That when the tonsils have ceased to perform their function, by reason of such pathological conditions as interstitial thickening and occlusion of the lacunæ of the glands, they probably present open-mouthed viaducts through which pathogenic germs may pass to the lymphatic circulation.
4. That all kinds of tonsillar inflammation are due to septic causes, or, in other words, to specific germs, and that those causing follicular disease, parenchymatous disease, and peritonsillar abscess, are different from one another.
5. It is believed, therefore, that septic influences are the exciting cause of tonsillar inflammation, and that the presence of pathological tonsils—tonsils unable to perform their physiological function—is the chief predisposing cause.
6. That a classification of tonsillar inflammation into three varieties is sufficient, viz., follicular, parenchymatous, and peritonsillar abscess.
7. That suppurative tonsillitis is not a correct name, because the suppuration occurs in the connective tissue about the tonsils and very rarely in the tonsils themselves.
8. That in people who possess the disposition to suppuration about the tonsils we find the tonsils

either adherent to, or covered by, the pharyngeal pillars, and that this condition plays a more important rôle in the predisposition to suppuration about the tonsil than does the rheumatic or other diathesis.

9. That when a tonsil shows itself competent at short intervals to become inflamed or to give rise to peritonsillar suppuration, it is in a pathological condition and should be destroyed by the galvano-cautery or by other measures.—*Med. Record.*

IMMENSE OVARIAN CYSTS.—There are vague references in medical literature to the immense size of ovarian tumors removed by this or that operator, but upon investigation their authenticity cannot be established. My own case was that of Mrs. B., aged thirty years; native of Jackson County, Indiana; married five years ago; no children. She says the enlargement of her abdomen was first observed after an attack of typhoid fever when sixteen years old, and from then until now, fourteen years, the growth has been gradual. Menstruation is regular and painless; appetite good. Her expression is cheerful, and she says except for the discomfort of the size of her abdomen she is as well as any woman in the land. Weight, two hundred and ninety pounds. Examination of this woman revealed a distension of the abdominal cavity beyond anything I thought the human belly capable of. Her naturally large frame rendered the enlargement less conspicuous, yet it was mammoth. Fluctuation could be freely elicited in all parts and entirely through the distension; circumference at navel, sixty-six and one-half inches; no edema of lower extremities; locomotion surprisingly good. Diagnosis, ovarian cyst, an operation advised. June 5, 1889, Drs. Yandell, Bailey, Burnett, Wilson, and others being present, the operation was performed. The patient could not lie on her back, so was placed on the right side. An incision four inches long was made, and the sac emptied by trocar. Twelve gallons of chocolate colored fluid were removed, when the sac was found free from adhesions. After ligation of the pedicle and removal of sac, the cavity was dried and closed without irrigation or drainage. The quantity of redundant skin was quite enough to fill a half-bushel measure. After the external dressing was applied, and this was abundant in order to fill in space and make pressure, long adhesive straps were placed over the dressing and attached to the side and back. Time of operation, about thirty minutes. There was no appreciable shock, and reaction was prompt. No nausea or vomiting. The progress of the case was entirely without incident; temperature never went above 99° F., and no opium was given. Bowels moved by saline and enema on third day; after fourth day ordinary diet allowed. First dressing and stitches removed on ninth day. Union *per primam*. Sat up on twelfth day, and returned home, a distance of seventy miles, on the nineteenth day after operation. I received a letter from her husband dated August 21, in which he says, "My wife goes where she pleases, has been to Ewington (six miles) three times." The operation was performed two days after menstruation, and she menstruated without pain at her following period. As stated before, there were just twelve gallons of fluid collected, which weighed one hundred and eight pounds; the sac weighed three and one-half pounds, making a total of one hundred and eleven and one-half pounds. This is, I think, the largest unilocular cyst ever removed by operation.

At this date, more than eighteen months since the operation, the patient is in the best of health.

—Cartledge, *Amer. Pract. and News.*

Medical News and Miscellany.

CATS are said to be immune against the narcotic effects of morphine.

A STEADY decrease is reported of the number of cases of cholera in Florence, Italy.

A CHINESE doctor prescribed a blister applied to the top of the head, to draw into its proper place a prolapsed uterus.

DR. GEO. A. HALL, of Chicago, leased a house to a tenant; whose son died, of sewer-gas, as alleged; and now the doctor is sued for \$20,000 damages.

Moral: Don't own real estate.

LUYS claims that he can deliver women without pain, by the method of fascination. There is not, as a rule, much fascination about parturition; the stock of that quality being exhausted previously.

DR. W. STUART PALM, writing to the *Lancet*, notices a case of eczema caused by Virginian creeper. The effect seems to have been much the same as that caused in this country by the poisonous ivy.

DR. W. ARBUTHNOT LANE reports in the *Lancet* a case of epilepsy following on a depressed fracture produced by forceps at birth, in which the removal of depressed bone was attended with great benefit to the patient.

THERE is a good opening for a physician at Manassas, Va., two of the leading physicians having recently died. This locality proved very fatal to Northern men in the early sixties, but at present it is much more healthful.

A CIRCULAR just received from a reliable manufacturing house announces that they will sell one hundred 1-grain quinine pills for twenty-five cents. Will the gentlemanly retailer who still charges two cents per grain for quinine please notice?

In a case of dysentery that had resisted the most approved treatment for over two years, a fish-bone was discovered to be impacted in the rectum. When the bone was removed, the dysentery disappeared. Christian science couldn't be much worse.

THE race question, the problem of all Southern States, is the question with which the North Carolina school superintendent wrestles in his last report. The great need is white teachers to teach the colored children. There is a great field for medical mission work down there.

ACCORDING to the last census, the drug trade consumed, in 1890, 10,976,842 gallons of distilled spirits. Of this quantity, New York took 1,760,343 gallons; Illinois, 1,306,322; and Pennsylvania, 1,142,941. The wholesale druggists and the manufacturers used 7,966,640 gallons; the hospitals 102,790, and the retail druggists dispensed 2,907,412, in soda-sticks and tinctures.

ACCORDING to Madame Lachapelle, who appears to be the "boss" midwife of Paris, the real remedy for the depopulation of France, over which such a howl of consternation has been raised, would be to restrict the number of midwives on the ground that the ease with which the diploma is at present obtained, causes such competition for existence in their ranks that many, if not most, are fain to eke out a miserable existence by procuring abortions wholesale.

WE are desired to note that George Keil is about to issue another edition of his Register of the Physicians of Pennsylvania, New Jersey and Delaware. He desires to obtain the name and address of every physician in those States, with date and place of graduation, etc. His address is 1715 Willington street, Philadelphia, Pa. We understand that the coming edition is in the hands of a printer this year, instead of the people who made such a botch of the last.

At the Chicago Medical Society, Dr. Salisbury reported the case of a medical student with peritonitis, in whom the temperature reached 115°; and on several occasions the bulb of the thermometer burst while in the patient's axilla. Ordinary thermometers not proving equal to the occasion, others were employed, but the girl proved equal to the occasion, and sent the index up to the very respectable figure of 482° F.

The possibility of causing an abnormal record by compressing the bulb between the arm and the side may be considered in this connection.

DRS. SHURLEY AND GIBBES, of Ann Arbor, lectured in the Chicago Post Graduate College last Friday, January 23, upon their remedy for tuberculosis. Dr. Gibbes dwelt upon the distinction to be drawn between the tubercular and the simple inflammatory form of consumption.

Dr. Shurley then described the experiments made to combat the effects of the toxins generated by inflammation. Various chlorine and iodine compounds were tried, but without much success. Finally they inoculated guinea-pigs with iodine and the double chloride of gold and sodium. These animals were found to be proof against tubercular inoculations. After the meeting, Drs. Shurley and Gibbes were entertained by Dr. F. H. Martin and his wife, at a reception.—*Chicago News*.

PATENTS, ETC., on medical subjects, issued January 27, 1891:

Making anhydrous ammonia.	P. J. McMahon	.....	New Orleans, La.
Dental anodyne.	J. W. Hartigan	.....	Morgantown, W. Va.
Dental bridge-work.	E. B. Call	.....	Peoria, Ill.
Cough remedy.	M. E. Hess	.....	Foristell, Mo.
Scalpel.	S. Yankauer	.....	New York, N. Y.
Artificial tooth (two patents).	A. Page and S. S. Bloom	.....	Philadelphia, Pa.

TRADE-MARKS.

Remedy for kidney and liver diseases. (The words "The Great Vitalizer" and "German System Tonic," and the portrait of Mr. Jesse M. McFarland).	The Harter Medical Co.	.....	Sedalia, Mo.
Embrocation. (The word "Anti-Stiff").	J. Wilson	.....	Chiselhurst, England.
Medicine for inhalation. (The words "Anti-Bacteria Inhalation," and the representation of a splash of blood).	G. W. Mowry	Rochester, N. Y.

LABEL.

"Dr. Warren's Insomnia Cure".	J. N. Murdoch	Parkersburg, W. Va.
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CHARLES J. GOOCH, *Patent Attorney*.

LOCK BOX 76, WASHINGTON, D. C.

BIRTHS AND DEATHS IN LONDON.—The weekly return of births and deaths, for the week ending Saturday, January 10, shows that in London 2,816 births and 2,505 deaths were registered. Allowing for increase of population, the births were 305 below, while the deaths exceeded by 490, the average numbers in the corresponding weeks of the last ten years. The annual death-rate per 1,000 from all causes was 29.1.

The 2,505 deaths included 76 from measles, 16 from scarlet fever, 28 from diphtheria, 76 from whooping-cough, 9 from enteric fever, 1 from an ill-defined form of continued fever, 13 from diarrhoea and dysentery, and not one from small pox, typhus, or cholera; thus, 219 deaths were referred to these diseases, being 12 below the corrected average weekly number.

"THE body has been parcelled out,
For doctors' benefit, no doubt,
Divided up so very nice
That every one can get a slice.
To one they gave the fingers, toes,
Another gets the eyes and nose;
A third, more greedy for his part,
Has gobbled up the lungs and heart.
For his untiring ceaseless pen,
They gave the pancreas to Senn."

—Dewey.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy AND Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from January 20, to January 26, 1891.

By direction of the Secretary of War, the extension of leave of absence, on account of sickness, granted Major Stevens G. Cowdrey, Surgeon, in Special Orders, No. 302, December 27, 1890, from this office, is still further extended two months on surgeon's certificate of disability. Par. 13, S. O. 19, A. G. O., Washington, D. C., January 23, 1891.

By direction of the Secretary of War, Major William H. Gardner, Surgeon, is relieved from further duty in the field, and will return to his proper station. Par. 2, S. O. 19, A. G. O., Washington, D. C., January 23, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending January 31, 1891.

CRANDALL, R. P., Assistant-Surgeon. Ordered to examination, preliminary to promotion.

BERRYHILL, T. A., Passed Assistant-Surgeon. Detached from "McArthur" and wait orders to "Marion."

JONES, W. H., Surgeon. Detached from "Swatara," proceed home, and granted six weeks leave.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the four weeks ending January 24, 1891.

BAILHACHE, P. H., Surgeon. Granted leave of absence for seven days. January 12, 1891.

PURVIANCE, GEORGE, Surgeon. To proceed to Pittsburgh and Erie, Pennsylvania; Cleveland and Toledo, Ohio; Detroit, Michigan; and Buffalo, New York, as Inspector. December 29, 1890.

CARRINGTON, P. M., Passed Assistant-Surgeon. Granted leave of absence for seven days. January 16, 1891.

GEDDINGS, H. D., Assistant-Surgeon. To report in person to the Supervising Surgeon-General, January 16, 1891. Detailed for special duty, port of Georgetown, D. C., January 19, 1891.

STIMPSON, W. G., Assistant-Surgeon. To proceed to New Orleans, La., for temporary duty. January 6, 1891.

The Times and Register.

Vol. XXII, No. 6.

NEW YORK AND PHILADELPHIA, FEBRUARY 14, 1891.

Whole No. 648.

ORIGINAL ARTICLES.	PAGE		PAGE	THE MEDICAL DIGEST.	PAGE
THE VALUE OF ARTIFICIAL DRUMHEADS.		For Alopecia Circumscripta. <i>Shoemaker</i>	134	For Urticaria. <i>Stewart</i>	134
By John Ward Cousins, M.D., London,		For Eczema of Limbs. <i>Shoemaker</i>	134	For Bronchitis and Asthma. <i>Burford</i>	134
F.R.C.S.	127	Treatment of Chorea. <i>Waugh</i>	134	Headache. <i>Walker</i>	137
MENSTRUATION. By Charles D. Spivak,		Eczema Marginata. <i>Shoemaker</i>	134	For Carbuncle. <i>Avord</i>	137
M.D.	128	For Crusta Lacta in Children. <i>Shoemaker</i>	134	Cynvallaria. <i>Shoemaker</i>	137
TABLET TRITURATES IN COUNTRY PRAC-		Ointment for Soothing the Skin	134	A Tonic. <i>Bullock</i>	138
TICE. By H. P. Nottage, M.D.	131	Progressive Myopia	134	Burney Yeo's Formula for Coto	138
		Cataractous Lens. <i>Keyser</i>	134	Thebaine, Narcotine, and their Derivatives.	
				<i>Stockman</i>	138
SOCIETY NOTES.		EDITORIALS.		Bamboo Sprouts as Food. <i>Sei-i-kwai</i>	138
THE PHILADELPHIA ELECTRO-THERAPEU-		HYPNOSIS	135	The Best Method of Asepsis. <i>Bernays</i>	138
TIC SOCIETY	132			Sexual Ethics. <i>The Open Court</i>	138
Electro-puncture of a Cystic Goitre;		ANNOTATIONS.		Menière's Disease. <i>Müller</i>	138
Disappearance of Both Cyst and Goi-		The St. Louis Clinique	135	Bromoforn. <i>Kreiger</i>	139
tre. <i>Massey</i>	132	The Way in Which Boston Illustrates Her		Virchow on Catarrhal Pneumonia	140
		Medical Journals	135	Treatment of Placenta Prævia. <i>Kolff and</i>	
		The Death of Dr. Elisha Sterling, of Cleve-		<i>Treub</i>	139
THE POLYCLINIC.		land	135	Dr. Wood on Anæsthesia	139
MEDICO-CHIRURGICAL HOSPITAL:		La Verrier and Adams	135	Surgical Treatment of Erysipelas. <i>Rogers</i>	140
Hypermetropia. <i>Keyser</i>	133	"Puzzling the Doctors"	136	What is Pain? <i>Beebe</i>	140
Serpiginous Ulcer. <i>Keyser</i>	133	The Marine Hospital Service	136	Some Recent Decisions in Medical Jurispru-	
Interstitial Keratitis. <i>Keyser</i>	133	DaCosta on Koch's Lymph	136	dence. <i>Riley</i>	140
Blepharitis Marginalis. <i>Keyser</i>	133	Methylene Chloride	136	Dementia Paralytica. <i>Seguin</i>	140
Trachoma. <i>Keyser</i>	133	The Message of the Governor of Illinois	136	A New Operation for Spasmodic Wry neck.	
Cholera Infantum. <i>Waugh</i>	133			<i>Keen</i>	141
Pathological Deposition of Pigments.		BOOK NOTICES.		Methods for the Preparation of the Gold	
<i>Laplace</i>	134	The Medical News Visiting List for 1891	137	and Iodine Solution for the Shurley-	
Absorption of the Secretion. <i>Laplace</i>	134	Book News	137	Gibbes Method of Treatment of Tubercu-	
Pus of a Psaos Abscess. <i>Pancoast</i>	134	The Care of the Eyes in Health and Dis-	137	losis. <i>Clark</i>	141
Colles' Fracture. <i>Laplace</i>	134	ease. <i>Skinner</i>	137	MEDICAL NEWS AND MISCELLANY, 142	
		PAMPHLETS	137	ARMY, NAVY, AND MARINE HOSPITAL	
				SERVICE	146
				NOTES AND ITEMS	147

Original Articles.

THE VALUE OF ARTIFICIAL DRUMHEADS.

By JOHN WARD COUSINS, M.D., London, F.R.C.S.,
Senior Surgeon to the Royal Portsmouth Hospital, and the Portsmouth
and South Hants Eye and Ear Infirmary.

IT is a well-established fact that artificial drumheads do improve the hearing power of many patients, and that a large number of contrivances, composed of various materials, have been used with great comfort and advantage. The real value of the artificial membrane must be estimated by ordinary conversation. We really have no standard for the classification and comparison of cases, and we are compelled to rely upon a rough-and-ready method of testing, and the voluntary statement of the patient. The degree of improvement can be calculated for all practical purposes by observing:—1. The help afforded in conversational intercourse. 2. The increase in the hearing distance. 3. The improved expression in the countenance of the patient. I classify my patients in three groups:

- (a) Patients very considerably improved in hearing power.
(b) Patients improved.
(c) Patients not improved.

The variations in deafness for ordinary conversation are considerable, and these inequalities must be carefully estimated in drawing up any tabular statement.

Diseases in which Artificial Drumheads are Useful.

—As a general rule, the most successful applications occur in cases of perforation of the membrane tympani. The amount of benefit, however, does not depend upon the size and position of the injury, for in every case there are other conditions which exert a variable influence on the result. It is almost impossible to have any loss of substance in the membrane without also some other structural changes in the tympanic

cavity and its contents. Artificial drumheads are also beneficial in other alterations of the membrane, involving abnormalities of tension in the conducting apparatus. They may be used with benefit in chronic middle-ear disease, attended with ossicular changes, and cicatricial collapse of the membrane, provided the Eustachian tube is unobstructed, and the nasopharynx fairly healthy. It is very difficult to describe the exact alterations in the contents of the tympanum for which artificial membranes can be hopefully employed; at the same time we may be sure that they are useful in some cases altogether free from any perforation of the membrane.

Position in the Meatus of the Artificial Membrane.—It has been often stated that mechanical aids must be placed over the perforation in the membrana tympani, and be applied so as to fill the aperture. Now, I am ready to admit that direct contact with the meatal wall, or near the remnant of the membrane, does, in many cases, improve the hearing power; still, it is not necessary to plug the perforation with the artificial drumhead. This notion clung to the efforts of surgeons half a century ago; but the practice of closing the aperture proved dangerous, and was sometimes followed by unfortunate results.

Toynbee says ("Diseases of the Ear," p. 167): "As in cases of perforation, or disease of the membrana tympani, there is so frequently catarrhal inflammation of the mucous membrane of the tympanum, it is obviously important that no foreign substance should be placed in contact with that membrane, and, as there is always a margin of it remaining, the surgeon should be careful to keep the artificial membrane external to it; for if any attempt be made to pass the membrane beyond this point, the patient will complain of pain." In some cases I have found that the formation of a screen across the passage, near the injured drum, is quite sufficient to produce very satisfactory results. It is a matter of importance that the artificial drumhead should be

selected to suit the shape and capacity of the external ear. It is my practice to regulate the height of the crown of my membrane by the sensations of the patient, and the breadth of the brim by the size of the meatus. It must not fit too tightly, but simply rest in contact with the meatal wall. It is not necessary to place the point upon the perforation. The right spot cannot be selected by any internal examination of the organ; but in every case the sensations of the patient, and the improvement in the hearing power, will assist in slipping the membrane into the right position.

Artificial Drumheads Often Immediately Beneficial.—It frequently happens that good results are obtained by simply adjusting the membrane, and replacing it as often as necessary. In such cases the perforation of the membrana tympani is uncomplicated by serious inflammatory changes in the tympanum, and the artificial drumhead is beneficial at once, by restoring the continuity of the conducting apparatus, and by the formation of a closed cavity at the upper part of the canal, in which the sonorous vibrations are concentrated upon the labyrinth. In perforation, associated with chronic suppurative disease of the middle-ear, we can only hope for progressive improvement, and cleansing and deodorising treatment must be diligently practised before the value of the artificial drumhead can be estimated. It is absolutely necessary to carry out daily antiseptic treatment, and to remove, as far as possible, chronic tubal obstruction. It is only after weeks of perseverance and attention that the full comfort of the appliance can be secured, and the sensibility of the injured organ so far improved that the patient does not appear deaf in ordinary conversation.

Care Necessary in the Selection of Cases.—Artificial aids are often much abused, and are even carelessly employed by members of the profession. In many suitable cases the form of the artificial membrane and its position on the meatus require careful investigation. Many cases of perforation are really chronic and complex aural diseases, in which the morbid changes in the tympanum have been followed by atrophy of the nervous structures, and degeneration in the inaccessible recesses of the labyrinth. The deep and superficial disorders of the ear are often blended together, and changes in the sound-receiving apparatus are the secondary results of chronic middle-ear disease. We must never forget that the improvement in conversational power, and the removal of the strain in listening, can only follow the insertion of the drumhead when all the nervous structures of the organ retain, in a great measure, their normal sensibility.

MENSTRUATION,¹

A BRIEF SUMMARY OF THE THEORIES OF THE
ANCIENTS, WITH SPECIAL REFERENCE
TO THE VIEWS HELD BY THE
TALMUDISTS.

By CHARLES D. SPIVAK, M.D.

IT is probable that Eve, the mother of all the living, used for a napkin a piece of the same material out of which she cut her first apron. The Bible, however, makes no mention of the menstrual function having been performed by Eve. Mustitamus, in his work on "Diseases of Women," published in 1793 (quoted by Dr. C. H. Schauer, in *Monatsschrift für Geburtskunde*, 1855), gives the following theory of the origin of menstruation:

After Eve had tasted of the forbidden fruit of the tree of the knowledge of good and evil, she suddenly felt the "tickling" of the sexual appetite. She beguiled the innocent simpleton Adam to partake of this aphrodisiac, and thus the first sexual intercourse took place. All the future generations were stained by that sin, and the Eternal, therefore, afflicted her with the menstrual flow, as a forewarning to woman-kind of the *Fidei Communs*.

I do not vouch for the veracity of this story, but I cannot see any reason why our mother, Eve, should have been spared the inconveniences which all her daughters had and have to undergo.

A few years ago Dr. King (*American Journal of Obstet.*, August, 1875), tried to cast a doubt upon the "flowers" of Rachel (Gen. xxxi, 35), being blinded both by his preconceived theory of menstruation being a pathological function, and by ignorance of Hebrew. Had he read the passage in the Bible where it is related how Sarah ridiculed the idea of her giving birth to a child after "it has ceased to be with her after the manner of women" (Gen. xviii, 2), he would have had one argument less in support of his moss-begrown theory, and thus spared himself a part of the scathing criticism (*Amer. Pract.*, 1875, No. 12) of an opponent, who can as readily preach a sermon as solve a knotty problem in obstetrics, and who, above all, "thinks clear and sees straight," as Prof. Bartholow is wont to say to his class.

There is nothing new under the sun. Dr. King's theory is not of the first dye; it is only a modification of the theory of Mustitamus above mentioned. The difference lies only in the explanation of the origin of the pathology, not in the pathology itself. Mustitamus ascribes menstruation to the direct interference of a higher power, a *punishment* for a *sin*. Dr. King argues that civilization is at the bottom of the evil, and nature *punishes* all *sins* against the laws of health. Not much difference, to be sure. Dr. King may shake hands with the venerable ghost of Mustitamus; they are brethren in faith.

However, Dr. King is not an exception in the history of the development of theories of menstruation. There is not one ancient theory, however unphilosophical and illogical, which has not found adherents, or, to borrow an ecclesiastical expression, revivalists in the present century. Hippocrates taught that menstruation is a necessity to women on account of the structure of their bodies, which is porous and sponge-like. The body, therefore, takes up greedily all the liquids from the abdomen, and, should there be no channel or outlet, like that of menstruation, for the discharge of superfluous liquid, women would either burst or dissolve away. This theory has taken another shape in the hands of a modern scientist, M. Dechaux (*Gaz. Hebdom. de Med. et Chirur.*, 1875, No. 49). Lymphatism is the name given to this transmigrated theory. Dechaux maintains that a superabundance of lymph and serum is the *état nat-*

¹ In both instances are used words which originally mean way or path. In the story of Sarah is used the word Orach, and in that of Rachel, Derech. Both roots are translated by Buxtorf and Gesenius by "Via" and "Iter," and used figuratively in the sense of "manner," "custom." ("Via, Iter; metaphoricè: consuetudo." Buxt.) It is strange that the author of the article on menstruation in the "Nouveau Dictionnaire de Médecin," by Jaccoud, did not know of this passage, and begins his article with the following absurd premises: "At no epoch (he means in ancient times) was there ever recognized that the menstrual flow indicates the time of puberty, and its cessation the end of the reproductive faculty." The author ought to read the Bible.

¹ Prize Thesis at Jefferson Medical College in 1890.

urel of women. As a logical consequence of this "limpy and quasi serious" theory, he tearfully begs his brethren in profession not to touch any case of leucorrhœa or uterine catarrh, as it is nothing but natural for women to exude such matter.

The celestial bodies, in olden times, were appointed to do some extra work outside of their routine business of ruling by day and night. Thus, fair Luna was supposed to have dominion over the uterus, and to directly influence the periodicity of the monthly flow. In the second half of this century men of undisputable learning have taken up the subject anew, and, strange to say, arrived at the same conclusions (Strohl, *Gaz. Med. de Strassb.*, 1861, No. 6).

The notion entertained by all the Oriental nations, that women are unclean during the period of menstruation, gave rise to the custom of Turkish women to bathe three times a day in the menses; to wearing of colored laces by the women of Angola; to the building of special dwellings for menstruating women among the Persians (?) ("Histoire General de Voyage," vol. II, p. 240, quoted in "Darstellung der Biblischen Krankheiten"); to the seven cleansing days of the Hebrews, and even to the gentility of the Kalmuks, who do not degrade themselves by touching their wives when the latter are "unwell" (Palos, Sammlung, "Hist. Nachforsch. über manche Volkst.," quote *Ibid*). This barbaric notion, the direct result of a more savage notion of the inferiority of women in general, has undergone a remarkable transformation in the skilful hands of Oslander, Burdach, Testa, and others (quoted in "Alte und Moderne Theorien der Menstruation," *Monatschrift für Geburtskunde*, 1855). It was found that women generate more carbonic acid gas than men, and, furthermore, that their lungs are a trifle smaller; ergo as the superfluous CO₂ has to be eliminated somehow, the learned have decided that the uterus shall do the work. Thus the uterus was promoted to the high office of supplementary lung. The clouds were dispelled, and the good men, having thrown off a great responsibility, felt relieved.

Is not this lung-uterus theory but an evolution of the Oriental notion of purification, dressed and served with all the paraphernalia of the modern scientific vocabulary?

The most venerable theory is the "plethoric." A long list of distinguished men in science, from Galen to the middle of this century, can be made of those who adhered to this theory; some contending for the original idea of a "general plethora," and others jealously defending the existence of a "local plethora."

There are still others, the malcontents, who lay all this trouble of menstruation at the door of "civilization." "Mankind has degenerated," they wail, and, à la Rousseau, they pine for a state of society where napkins shall be unknown, and staining be no more.

Great Mustitamus! Thou wast right; there is nothing worse than bad society: the company of Eve caused the fall of Adam.

Having briefly, and in a cursory way, stated the principal ancient theories of menstruation, worthy of the name, I shall approach the main subject of this essay, which aims to present, for the first time, I think, both the theory of menstruation, as it was understood by the Rabbis of the Talmud, as well as a brief summary of their observations of this phenomenon.

I shall preface it by a few words: It seems to me, as far as my limited knowledge goes, that there is at present a tendency among some obstetricians toward

discarding and throwing overboard the theory that fathers ovulation upon menstruation—a theory which is held by the majority of scientists of this day.¹ If I am not mistaken, Dr. Mary Putnam Jacobi, in her admirable work, "The Question of Rest for Women During Menstruation," has shown for the first time that all the functions of women flow in a periodical wave-like rise and fall of their vital energy. I cannot do better than to use her own words:

"As the menstrual period represents the climax in the development of a surplus of nutritive force, we should expect to find a rhythmic wave of nutrition gradually rising from a minimum point just after menstruation to a maximum just before the next flow."

Thus, Dr. Jacobi teaches us that the menstrual flow is but a local expression of a complicated rhythmic process which is silently and mysteriously walking throughout the female organism.

I cannot refrain from quoting the following from the same work, which is a summary of her theory:

"It is to the development of a supplemental wave of nutrition in the woman, in which it intersects the waves of individual nutrition that are due most of the peculiarities of the female organism, and of its activity, and not to the mere existence of reproductive organs."

It could hardly be expected that the sages of the Talmud, without the thermometer, sphygmograph, and other modern scientific appliances and facilities at their command, could have arrived at conclusions which have even a slight resemblance to that of Dr. Jacobi. Nevertheless, the Talmudists, like the poet Goethe, of whom Emerson said that "He sees at every pore, and has a certain gravitation towards truth," and that "Eyes are better, on the whole, than telescopes and microscopes" (representative men, Goethe, or the writer)—the Talmudists, I say, had a vague idea of the theory, a glimpse of the truth—if truth it be at all.

The theory held by the Rabbis, among whom R. Meir was the principal exponent, can be expressed in the following words:

The menstrual blood is the production of an extra nutritive material in the female economy, which is discharged periodically when of no use, but which is converted into milk when the woman becomes pregnant, which explains the cessation of the flow during pregnancy and lactation. (Mishna Bechoroth, sec. ii, m. 9; Nidda Babli, p. 72; Nidda Yerushalmi, p. 50; Midrash Rabba and Midrash Thanchuma, section Ki-Thazriah.)

Rabbi Meir, who is quoted as authority in all the above treatises, and who expressed this theory after the Talmudical way, in a condensed sentence of four words, Hadam neëchar venaaseh chalab—

¹ Prof. Parvin, in his work, "Science and Art of Obstetrics," after reviewing the principal theories of menstruation, both those of historical and scientific value, takes up the arguments of the opponents to the "ovulation theory," and proves them to be untenable. In summing up the subject, Dr. Parvin said:

"It is in the highest degree *probable* that there is a connection between ovulation and menstruation. At the same time, it must be admitted that the two may be distinct—the one occurring without the other, though they are usually associated."

Prof. Parvin mentions (*Ibid* 102) Dr. John Goodman as advancing a theory that menstruation is dependent upon a law of monthly periodicity, which must be something akin to the theory advanced by Dr. Jacobi. As I did not read Dr. Goodman's book, I give the priority of the theory to Dr. Mary Putnam Jacobi, on the principle of "ladies first."

"The blood coagulates and becomes milk"—may have said it without being conscious of the great theory he propounded. But, who can doubt the striking similarity between his theory and that of Dr. Jacobi, expressed somewhere else in the above named book :

"The woman buds as surely and as incessantly as the plant, continually generating not only the reproductive cells, but also the nutritive material, without which this would be useless."

It seems to me they (the Rabbis) reasoned logically in basing their theory upon the relation of menstruation and lactation ; and, should even this theory of a "supplemental wave of nutrition," which is now gaining hold over the scientific world (Vratch, Nos. 50 and 51, 1889), prove to be groundless, it is, nevertheless, remarkable that simple men who lived two thousand years ago, and who studied menstruation unlike Raciborski, "merely or chiefly in the library," or, as we Russians say, "cabinet scientists," have arrived, or, at least, hinted, at the same conclusion to which a woman-genius has come, at the end of the nineteenth century, by the aid of all that scientific instruments and facilities of experiment can afford.

Now, I will state some of the observations of the Rabbis, which have no other than an historical interest.

The woman at the period of menstruation presents the following phenomena : "Yawning ; stretching of muscles of the body ; wind in the bowels ; feeling of heaviness in the head ; irritation at the umbilicus and at the orifice of vagina, and formication" (Nidda, sec. ix, m. 8).

"A child one day old, if it sees blood, is unclean." (Ibid, sec. v, m. 3).

"Five kinds of blood are unclean in women : Red, black, saffron-color, like the color of the water of Beth-Kerem, and like the color of Sharon wine." (Ibid, sec. ii, m. 6).

"Once in fifteen, twenty, twenty-eight, and thirty days." (Ibid, sec. ix, m. 8).

No definite quantity of the discharge is given.

"Women in menstruation are like the grape-vine (Ps. cxxviii, 3) ; there are vines that yield red wine, and others that yield black ; some produce much, and others scantily." (Ibid).

R. Jehuda, following the train of thought of the above, said : "Every grape-vine yields wine, and those that do not are sterile."

This opinion of R. Jehuda, that absence of menstruation indicates sterility, was shared by all his confrères, and among the signs of a sterile woman is included also absence of menstruation.¹ A peculiar chemical (?) test was employed to differentiate between menstrual blood and other coloring matters :

"Seven materials are passed over the stain : Saliva of an empty stomach ; juice of peas ; urine (stale) ; alum, soap, Kamunya and Ashlag.² If the stain disappears it is menstrual blood, if not it is dye." (Ibid.)

¹This may be either a hyperbole, or, for the purpose of making the law of cleansing more stringent, a method which they called Geder, erecting a "fence" around the law, so that no mistakes be made.

²If a husband becomes aware after marriage that his wife does not menstruate, he may divorce her (Gittin). Sterile woman was called *Ai la noth* ; from *Ayal*, a ram—ram-like. The following are the symptoms : Breasts are not developed ; voice masculine ; no hair on pudenda ; the labia do not protrude, and absence of menstruation (Yeba noth Babli).

³Rashi, the great Talmudical commentator interprets the two last as "two herbs used for cleansing the hands."

In a discussion about the period¹ in the life of women when they are permitted to have sexual intercourse without using a witness, the following² are enumerated : "A young girl ; in pregnancy ; in lactation, and an old woman. When is she called a young girl (Bethulah) ? Before the establishment of menstruation. When does pregnancy commence ? From time of quickening. When does lactation end ? When the child is weaned. What is meant by an 'old woman ?' When her woman friends call her so. R. Simeon said, when she is called 'granny' and she is not ashamed." (Ibid, Babli, p. 9. Ibid, Yerush, p. 49.)

"The blood of menstruation is dirty (mixed with mucus) ; the blood of ruptured hymen is clean ; the first is of a red color, the other is not ; the blood of menstruation comes from the uterus, while the blood of a ruptured hymen comes from the walls of the vagina." (Ibid, Yerush, last page.)

"Napkins should not be made of colored cloth or hemp ; but of cotton or white wool." (Ibid, Babli, p. 17.)

"A woman may menstruate shortly after death." (Ibid, p. 71.)

The subject of Rules, which is treated in different Tractats of the Talmud, and especially in the Tractat of Nidda,³ if gathered together and condensed would fill a large volume. Suffice it to say that the laws are very rigid, and they were obeyed to the letter. I will give a few instances by way of illustration.

"When a Nidda is in the house no priest⁴ ought to enter it. (Lekoch Kemach, quoted in Pachad Yitzchok.)

"She is not to eat with him⁵ (husband) at the same table unless they put something on the table to remind them of the state of things, or else make a partition." (Sabbath Babli, p. 11.)

A pathetic story is related of a man "who read much, studied much, and served the wise men much," and died in the prime of youth. His wife, grief stricken and distracted, took the philacteries (Thephilin) of her dead husband, and went from one college to the other asking the Rabbis : "Is it not written in the philacteries 'To love thy God, to hearken to his voice, and cleave to him, for he is thy life and the length of thy days ?'" (Deut. xxx, 20.) Nobody answered the poor woman. At last she came before R. Simeon. He asked her, "My daughter, how was it during menstruation ?" "Heaven forbid," she answered, "he did not touch even my lit-

¹The Talmudists were careful not to give any definite time of the cessation of the flow, probably for the same reason as stated in previous note.

²The napkin is called "witness" (Ed.) Before and after each sexual intercourse, the wife, as well as the husband, had to "examine the witnesses," lest there be found menstrual blood, in which case the law prescribes an immediate separation.

³"Separatio ; Impuritas mulierum menstrua. Buxtorf." The word is derived from Nod, to wander, isolate, whence "the land of Nod" where Cain dwelt after he "went out from the presence of the Lord."

⁴The great anxiety not to pollute the holy vessels of the Temple by the menstrual flow is illustrated by a story told of a servant girl of R. Gambiel who carried wine for the Temple, and she "examined the witnesses" between one pitcher and the other. (Nidda, Yerush, p. 49.)

⁵The dread of the husband and the tricks they employed to get out of the way of temptation is simply astonishing. Itzhok Bor Joseph had a large kettle placed in bed between him and his wife while she had the menses. Palti Ben Laish, it is said, used a sword as a partition. (Ibid, p. 49.)

tle finger." The stern old man¹ again asked: "And during the seven cleansing days?" "He ate with me, he slept with me in one bed, but he never attempted to do anything else." The venerable R. Simeon arose, and in a devout manner slowly said: "Blessed be the Lord who is the righteous judge, for it is said (Levit. xviii, 19) 'And a woman in the separation of her uncleanness shalt thou not approach.'" (Sabbath Babli, p. 102.)

The Rabbis endeavored always to give some rational reason for certain laws and statutes of the Bible. Concerning the law of Nidda, the following two reasons are given:

1. The children born of cohabitation during menstruation will be lepers. (Nidda, Midrash Robba and Thauchma, section Metzora.)

2. "Why has the Thorah (Law) prescribed that a Nidda should count seven days? Because he (the husband) is familiar with her, and gets tired of her, and may dislike her; therefore, she shall be unclean for seven days, so that she may be as dear and beloved by him as when she entered for the first time under the chuppa (canopy)." (Nidda, Bab., p. 31.)

Of vicarious or irregular menstruation there is no mention in the Talmud, except a solitary case of the latter. A woman came to R. Eliezer with a stain, desiring to know whether it was menstrual blood. R. Eliezer, as the Talmud tells us, was a great expert in the analysis of such cases, and he said it was caused by great sexual desire which was not gratified. The woman confirmed it by telling that her husband was away, and she was thinking of him, and then she noticed the blood.

I think that the view of R. Eliezer of the cause of irregular menstruation is more logical, if not true, than the theory of Emmett (*alte und Moderne Theorien der Menstruation*), which I omitted at the beginning of this essay, a theory which would make all woman-kind blush, and which announces to the world that "the menstrual fluid is due to uterine congestion caused by *orgasme veneris*."

PHILADELPHIA, FEBRUARY 10, 1890.

TABLET TRITURATES IN COUNTRY PRACTICE.

By H. P. NOTTAGE, M.D.

Former Assistant Editor of the *Annals of Gynecology*.

TABLET triturates have certainly reduced the drudgery of the country physician much—very much. If I were obliged to prepare and dispense four ounce and half pint Galenical preparations entirely, I doubt if I would be satisfied to remain in the country; but the products of improved pharmaceutical methods in the line of triturates and granules have made dispensing a pleasure to me. Indeed, if I were

¹ There are Jewish young men now who can remember the time when they were little children, and wondering at the strange behavior of their parents at certain intervals for the period of ten to twelve days. For instance, while at the table mother would not sit in her usual seat, near the husband, but between two children, or further away; she would never hand the soup to father, but let somebody else do it, or place it on the table where he could reach it. When one forgot about the whole affair and touched the other, the second party would start as if pierced by a dagger or bitten by a snake. Yet they were friendly; they talked gently one with the other, and, it seemed, even more obliging and solicitous than at any other time. The most mysterious instant for a child was, when on an early morning, around the table, father would touch mother, and she would give him a significant glance which the children could not understand, but if it was not missed, it was a sure sign that the strange fits were about to come over father and mother.

to return to the city I should certainly do my own dispensing, for the most part. I occasionally find it necessary to prepare a mixture or solution, but not often.

One can obtain a good idea of the mental acquirements of a man by looking through his library, and noting his journals and newspapers. I can obtain a fair knowledge of a brother physician by a look through his medicine case.

We are apt to imagine that the country doctor is away behind the times, and does not keep posted in the advances made in therapeutics. This belief is due largely to the fact that he does not write much for the journals. It is thought by us country doctors that some in the cities fairly write themselves into practice. We think so because of the number of useless articles that are seen in the journals, which evidently come from young and inexperienced physicians. We do not feel the stimulus that comes from this incentive; and also because we do not have access to the medical library to consult authorities, many records of interesting cases never see the light.

A glimpse into the satchel of many a country doctor would astonish a city physician who sends a good fraction of his practice to specialists. He might also be surprised to find there some of the newer drugs which he imagined had not yet found their way to the country.

To do one's dispensing mainly with triturates requires a peculiar case for carrying medicines. I could not find one that suited me, so I had one made to order, of cherry wood. In the hope that my case may afford suggestions to others who are doing their own dispensing, I will open it for them a moment. It has two compartments, and when open lies on the table flat with all the bottles at the same level. The bottles are so put in that they are all right side up when the case is open and facing the right way. When closed it is fifteen inches long, ten and a half wide and two and a half thick. A leather handle is attached to each half, and they are held together in one hand, so that it is impossible for the two halves to fly open while carrying the case. It contains three rows of half ounce French square prescription vials on a side, sixteen vials in each row. A detachable cover fits down over each side to keep the bottles from falling out when the case is opened.

This case filled would be rather heavy for a city physician who does some walking, but in the country the case is carried in the buggy the most of the time. The contents of the case are as follows:

LIQUIDS.

Tinctures.—Aconite, bryonia, opium, iodine, iron, rhus tox., cannabis indica.

Extracts.—Gelsemium, veratrum vir., ergot, belladonna, viburnum, aconite.

Solutions, etc.—Chlorodyne, "bronchitis mixture," spts. ammon. aromat., spts. æth. nitr., alcohol, elixir of pepsine, Fowler's solution, chloroform, chloral and bromide mixture, Hoffman's anodyne, Metcalf's "sciatika" prescription of acon., cimicifuga, bell., and colch.

TRITURATES.

Tinctures.—Pulsatilla, hydrastis, squills, strophanthus.

Extracts.—Jaborandi, cannabis indica, arseniate and sulphate of strychnine, brucine, citrate of caffeine, cocaine, iodoform, sulphate of atropine, zinc phosphide, gelsemine, acid arsenious, veratrine, acid benzoic, iron arseniate, sodium arseniate, euonymin,

quinine arseniate, morphia and atropia, digitaline, colchicine, hydrastine, codeine, acid salicylic, camphor monobrom., ferrum phos, podophyllin, calcium sulphide, trinitrin, cuprum arsenite, lithia carb., eserine sulph., macrotin, arsenic iodide, antifebrin, ol. tiglium.

That seems like a very long list, but it is none too long when one is away from "civilization," drug stores, and confrères.

CASES ILLUSTRATING THE USE OF THE ABOVE.

Mr. S., aged seventy years, was taken with a severe chill on a Sunday afternoon, with violent headache, rapid, full, irregular pulse, temperature 103.6° , slight hacking cough, scanty expectoration. Patient has been treated before for some heart trouble.

Treatment.—Six drops of ext. acon., twenty drops ext. verat. in a glass full of water, teaspoonful every half hour until skin is moist, then every hour. For the headache: one third grain of cit. caffeine every half hour until relieved. Arseniate of strychnine one-hundredth gr. every hour, and digitaline one-sixtieth gr. every two hours. At midnight, patient broke out into profuse sweat, headache relieved, went to sleep. Temperature, on the following morning, 100.6° . Treatment the same, at hourly intervals. On Wednesday, the temperature was normal and remained so. Pulse was regular and full under the digitaline.

Mrs. C., aged sixty-two years. Has had winter cough since she could remember; came on again a week ago; coughs night and day. Expectoration profuse and watery, dyspnoea on slight exertion; obliged to keep in her chair. Last winter the cough lasted eight weeks.

Treatment.—Ext. acon. bell., tinct. bryonia, gtt. six, five, fifteen, in glass of water, teaspoonful every two hours, with one-tenth calc. sulphide, strychn. sulph. one-fiftieth gr., and iodide of arsenic one-hundredth gr., every four hours. Two days later marked improvement in respiration and cough. Treatment the same. Three days from last visit: goes about her work with no dyspnoea, does not cough or raise so much. Treatment the same with double the quantity of bryonia. Five days later: does not cough at all in the night, is cheerful and almost free from cough in the day time. Treatment: Left off calc. sulph., and gave the other medicines together every four hours.

Mr. R., aged thirty years; mother died of phthisis; had bronchitis a year ago, and pleurisy in left side, has coughed ever since, and had more or less pain in left side. Lost about twenty pounds; cannot work. No fever during the day, but a little at night. Lungs negative, but a few coarse rales of bronchitis.

Treatment.—For the feverish symptoms, aconite every hour, commencing at 4 o'clock P.M., until bedtime; then one thirtieth gr. of digitaline. Every two hours one-tenth gr. of calc. sulph. Every four hours one-fiftieth gr. strychn. sulph. for the respiratory center and vitality, sod. arsenite one-thirtieth gr. for malnutrition, iodoform one fifth gr. to begin with as an expectorant, alterative, and germicide. Chloroform water ad libitum for the cough. Patient is gaining rapidly under this treatment. It remains to be seen whether he will be cured.

Mr. S., aged thirty five years. Has had angina pectoris for a week; found him doubled up on a lounge, fearing that he was about to die. A physician had prescribed bromide of potash and valerian with apparently no benefit. Gave him one-hundredth grain of trinitrin, and five hundredth grain of atropine sulph. In ten minutes he sat up and began to

converse. I then repeated the dose. In ten minutes more he went out into the other room after his pipe, came back and had a smoke. Pain still there, but diminishing. Pulse, which had been small and irregular, was now full and more regular.

Treatment.—Strychn. sulph. one-hundredth gr., digitaline one-sixtieth gr., trinitrin one-hundredth gr., and acid arsenious one-sixtieth gr. every four hours. The trinitrin and digitaline are to be discontinued when the pain has been absent a few days. Saw patient in two days, and found him free from pain, except occasional headache, possibly due to the trinitrin.

Miss T., aged thirteen years, has had acute coryza for two days. Says her "nose runs a stream." Conjunctivitis, tears running down face, cannot bear the light, slight cough. Aconite, belladonna and calcium sulphide every hour, with inhalations of the fumes of camphor on boiling water every eight hours completely aborted the attack in twenty-four hours.

I have found valuable suggestions for the use of the alkaloids and the treatment of acute diseases in what is known as the "Dosimetric Method." It will be observed that some of the drugs in my case are employed by the homœopaths, and, when I use them in *appreciable doses* in accordance with the symptoms, I get very good results.

As I do not practice according to any *exclusive* system, I glean from all fields, and give credit where credit is due.

Society Notes.

THE PHILADELPHIA ELECTRO-THERAPEUTIC SOCIETY.

WM. H. WALLING, M.D., Secretary.

THE February meeting of this society was held at 36 North Nineteenth street, February 8. President G. Betton Massey, M.D., in the chair. The minutes of the last meeting having been read and approved, and the Treasurer's report having been received and accepted, the society went into the election of officers for the ensuing year, with the following result:

President, Matthew W. Grier, M.D.; Vice-Presidents, I. P. Willits, M.D., and Horatio R. Bigelow, M.D.; Secretary and Treasurer, Wm. H. Walling, M.D.; Executive Council, Drs. G. Betton Massey, J. J. Taylor, and W. H. Walling.

DR. MASSEY then read the following paper:

ELECTRO PUNCTURE OF A CYSTIC GOITRE; DISAPPEARANCE OF BOTH CYST AND GOITRE.

A maiden lady, aged forty-one years, was brought to me by Dr. Emily W. Wyeth, October 1, 1889, with an irregularly shaped goitre, about the size of a small orange. The left lobe was much the larger and was the seat of a monocyte of considerable proportions which had increased very much during the last year, the growth having been noticed about seventeen years. The circumference of the neck at this point was sixteen and three-eighths inches. Treatment was begun by a negative puncture of the cyst with a solid needle, 35 milliamperes being used for fifteen minutes. This was followed by a considerable oozing of a straw-colored liquid. Four days later the cyst was evacuated of its contents, measuring an ounce and a half, and 40 ma. negative applied to the cyst walls for ten minutes, by means of the canula acting

as an electrode, the latter being insulated as far as the cavity. This procedure was repeated five times subsequently, with current strengths rising to 100 ma., the cavity being permitted to refill after each puncture. Careful measurements showed that the cyst was refilling more slowly after each application, but on December 9, it was decided by Dr. Wyeth and myself to make a free opening and apply the positive pole, by means of a gold bulb electrode, to all sides of the cavity at stated intervals, maintaining free drainage in the meantime. This procedure was required but twice, with currents of 100 and of 50 ma., the drainage tube, which was most assiduously looked after by Dr. Wyeth, being gradually shortened and removed on the seventh day. During this time the patient suffered a slight rise of temperature, due to a temporary obstruction of the discharge by accidental removal of the tube. By February 21, nothing remained of the growth but a cicatricial lump about the size of a peach stone, and two months later this had also disappeared without further treatment.

Discussion.—DR. GREEN: Has never treated the cystic variety, but has used outward applications on true goitre, with currents of not over twenty-five ma. He used tin electrodes covered with muslin, placing the positive pole on the inferior cervical ganglion, and two negative plates upon the tumor, one on each side. The sittings lasted for five minutes each, being repeated three times a week, for from two to three months. Some preparation of the iodides were also used. Favorable results were obtained in about fifty per cent. of the cases.

DR. PETERSON spoke of a case in which the fluid extract of ergot was used, with good effect, being applied to the tumor upon the positive pole.

DR. BIGLOW: There is a canton in Switzerland in which you cannot walk out without meeting a goitre. The disease is not confined to those who drink the waters, neither to those who carry heavy burdens on their heads.

Dr. Biglow could not see why the same treatment should not be followed in a fibroid in the neck, as well as in any other part of the body.

In a cystic tumor the action of the current was: 1. Electrolysis. 2. The arresting of the secretion, and 3. To compel absorption. He also thought that constriction should act well in such cases. Dr. Neggath uses the faradic current in overcoming ovarian cysts. He applies the negative pole to the ovaries, per vagina, and the positive on the abdomen, using swelling currents for an hour at a sitting, obtaining good results in six weeks. It must be the heavy voltage that acts so favorably, and if in one case, why not in another?

DR. GREEN had used faradism in goitre, but abandoned it on account of its unpleasant effects.

DR. WALLING: Dr. Massey says that he emptied the cyst before applying the galvanic current. We must be guided by experience, as well as by theory. Why was the positive used? Was not the negative pole the one indicated? In the treatment of hydrocele, Dr. Walling does not drain the sac, unless it is extremely distended, and then but little. Use the negative needle in the tumor, and the positive on the thigh, with a current strength of fifteen ma. for fifteen or twenty minutes. He had excellent results in such cases. Scarcely any inflammation followed, and the contents of the cysts were rapidly absorbed, with obliteration of the sacs.

He had used the strong faradic current, but saw no benefit from it, although it caused strong contractions of the muscles. Why not treat other cysts in the

same way? You cannot reach all parts of the surface of the sac, after emptying it, while some parts would be unduly acted upon, tending to set up too much inflammation. What better electrolytic than the fluid in the sac, thus reaching every portion alike.

DR. MASSEY said he was disposed to regard the faradic current as of no value in cystic tumors; but in one case, where a cyst developed in a fibroid, he used a strong faradic current with great advantage. He regarded aseptic aspiration, followed by electrolytic puncture, as the best procedure in cystic conditions.

Adjourned.

The Polyclinic.

MEDICO-CHIRURGICAL HOSPITAL.

HYPERMETROPIA is always due to a defective eye-ball, never to inflammatory processes, as is myopia sometimes.—*Keyser.*

For a serpiginous ulcer of the cornea, Keyser prescribed the following ointment to be placed in the eye three times daily, the lid to be closed after each application:

R.—Iodoformi..... gr. v.
Adipis benz..... 3j.

Ft. ung.

Commenting on the disease, he said: This is a very painful disease on account of the exposure of the fine corneal nerves. The cause is really not exactly known, although some of the well-known ophthalmologists and investigators claim it arises by the development of a bacillus in the superficial layer of the cornea. . . The lesion looks much like an abrasion. Sometimes the deeper layers are invaded, when, generally, the formation of an abscess is likely to occur. When this is the case, a mydriatic or myotic should be used according as the ulcer is near the center or margin of the cornea, to guard against the possibility of the iris falling into the abscess cavity in case it ruptures. Cocaine should not be used in this disease, because it contracts the blood-vessels, thus lessening the supply of nutrition to the cornea; which, in consequence, is liable to undergo necrosis. Intense pain also follows the disappearance of its effects, caused by a too rapid dilatation of the blood-vessels. To relieve the pain, applications of warm water are useful, and if the deeper tissues are involved, a compress bandage should be applied. The eye should be washed with antiseptic solutions of corrosive sublimate or boric acid.

In interstitial keratitis, give internally syrup of hydriodic acid, gtt. xv in water, thrice daily.—*Keyser.*

In a case of blepharitis marginalis, Keyser touched edge of lids with a gr. x-to-the-f3j solution of silver nitrate, and gave patient the following ointment to apply to the lids:

R.—Hydrargyri oxidi flavii..... gr. ss.
Adipis benz..... 3j.

Ft. ung.

Trachoma was formerly supposed to be only a severe form of granular conjunctivitis, but at the late Berlin Congress it was shown to be an entirely distinct disease, and of bacterial origin.—*Keyser.*

Commenting on the treatment of cholera infantum, Waugh said: Children are very readily narcotized in this disease. Even a quarter of a grain of opium may cause the pupils to contract to a pin point and the respirations to be reduced to twelve. Further, opium favors the development of micro-organisms.

In simple catarrhal diarrhoea it may be of service, but when there is microbic infection it should never be given. In such cases the sulpho-carbolate of zinc is valuable. The pure salt is white and crystalline, the impure is effloresced and of a dirty color. It should be given persistently until the stools lose their fetid odor and vomiting is checked. It may also be administered in enemas, four to five grains in a few ounces of flaxseed tea. Stimulants, gtt. x-xx of brandy with cracked ice, may be given to a child one year old. Nitro-glycerine ($\frac{1}{500}$ gr.) will have a good effect on the heart. Inunctions of lard over the abdomen, together with a broad flannel bandage to support it, will avail much, as will also bathing the child from head to foot in warm cod-liver oil. A small quantity of opium may be given to arrest excessive peristaltic action.

Laplace gives the following as his theory for the pathological deposition of pigments: Cells in a state of pathological proliferation are diminished in vitality in proportion to the rapidity of their reproduction. The youngest cells, therefore, are in the state of lowest vitality. Hence, by a process analogous to the process of calcification, known as calcareous degeneration, as observed in the aged, and organs of diminished vitality—tuberculous lung—these partially devitalized cells admit of such chemical union with the blood as results in the deposition of pigment within them. The examination of a melanotic cancer under the microscope shows the pigmented cells to be those that have infiltrated; that are farthest away from the center of the gland, hence are the youngest cells. Being of lower vitality, they are unable to resist degenerative changes.

The absorption of the secretion, due to the irritation produced by head lice, has been shown by a foreign investigator, to be the source of a general infection of the lymphatic glands, giving rise to Hodgkin's disease in children under ten years of age.

—Laplace.

The pus of a psoas abscess, says Pancoast, sometimes travels to the posterior part of the thigh through a triangular opening, which he calls the innominate foramen, that exists between the obturator externus (superiorly) and the upper border of the adductor magnus (inferiorly). The femur at the junction of the neck and lesser trochanter forms the antero-external boundary of this opening.

When a Colles' fracture is suspected the relative positions of the styloid processes of the radius and ulna should be determined. Normally the radial process is about the width of a finger in advance of the ulnar process. In Colles' fracture they will be found to be in the same transverse line owing to the retraction of the radial process. Observation of this fact will aid you to make a correct diagnosis.—Laplace.

For alopecia circumscripta, Shoemaker prescribed: Externally—

R.—Ung. oleat. hydrarg. 3j.
Acidi carbolici. gr. v.
Ext. nucis vomice. gr. x.
M. ft. ung.—Sig. Rub in night and morning.

Internally—

R.—Ext. ignatiæ amaræ. gr. ij.
Sodii arsenitis. gr. j.
Ferri pyrophosphatis. gr. xl.
M. ft. pil., No. xx.—S. A pill, t. i. d.

For eczema of limbs, when due to varicose condition of veins, Shoemaker recommends extract hamamelidis fl. gtt. xv; in glycerine, 3j, t. i. d. In addition to supporting bandage, he would apply to the limb the following ointment:

R.—Beta naphthol.
Camphoræ. āā gr. x.
Ung. hydrarg. nitratis. 3ij.
Ung. aquæ rosæ. 3j.
Ft. ung.

In the treatment of chorea, Waugh regards cimicifuga the most valuable remedy. He uses an infusion made from the fresh root, which he has gathered for him from the woods. The root furnished by druggists he has found to be worthless.

In a case of eczema marginata, Shoemaker prescribed hoang nau internally, and the following ointment:

R.—Ol. cadini. 3j.
Acidi borici. 3ss.
Ung. zinci oxidi benz. 3j.
Hydrarg. ammoniati. gr. x.
Ung. aquæ rosæ. 3ss.
Ft. ung.

For crusta lacta in children, Shoemaker prescribes internally:

R.—Syr. phosphat. comp. f3j.
Ext. malti fl. f3iv.
M.—S. 3j. four times daily.

For the scalp—

R.—Ol. cadini. f3ij.
Ol. morrhue. f3v.
M.—S. Rub well in.

When a soothing, sedative, astringent effect is desired upon the skin, applications of the following ointment will be found useful:

R.—Plumbi carbonatis. 3j.
Morphinæ sulph. gr. v.
Menthol. ʒj.
Ol. eucalypti. m. x.
Ung. zinci ox. benz. 3j.
Ft. ung.

Progressive myopia is a very serious affection, next to glaucoma in point of gravity. Intra-ocular hemorrhage may occur between retina and choroid—also detachment of the retina is liable to take place—total blindness ensuing. Give the following pill, and the injunction that the eye must be kept absolutely at rest, and protected from bright lights by smoke-glasses:

R.—Hydrargyri bichloridi. gr. j.
Ext. belladonnæ. gr. ij.
M. ft. pil., No. xx.—S. A pill t. i. d.

The old method of needling or of conching a cataractous lens into the posterior chamber is a dangerous one, if the lens contain a foreign body. It should always be extracted.—Keyser.

FOR URTICARIA—Sponge with saturated solution bicarbonate of soda, from head to foot.

—Stewart, *Med. Brief.*

FOR BRONCHITIS AND ASTHMA—

R.—Ammonii chloridi. 3ij.
Ant. et potas. tart. gr. ij.
Morphinæ bromid. gr. iij.
Ext. glycyrrhizæ fl. ʒss.
Syr. tolutanæ. q. s. ad 3iv.
M.—Sig. Teaspoonful every three hours.

—Burford, *Dixie Doctor.*

The Times and Register

A Weekly Journal of Medicine and Surgery.

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HYPNOSIS.

THE investigating spirit of the age leads us frequently into paths which promise pleasantly for us, but which are, like Edward Bellamy's side-walks, so covered with awnings as to exclude all contact with that freshness which the rain pours upon the earth.

As the investigator pushes his way, he is occasionally brought face to face with some obstacle for whose existence he is unable to account. Phenomena spring up at every turn, demanding his attention, and each one of them suggests a hundred more phenomena "worse than the first," and new problems arise, demanding constant solution.

Among the problems which science has set our modern investigator, none holds a more alluring place than hypnotism. Many are the questions to which it gives rise, and few indeed, it seems to us, have been the solutions. Let us look at some of the facts which hypnotists claim to have established.

They divide hypnotism into three stages—lethargy, somnambulism, and catalepsy. The first of these may often be self-induced, the second is easily induced in those who are considered good subjects and who have been under training, and the third is familiar to all those who have seen Henry Irving in "The Bells." Now, just here arises a difficulty. The first of these stages is dangerous, because it is so easily wielded that the temptation is great in the hands of an inexperienced or unscrupulous performer; but in such a person's hands the second is infinitely more dangerous. Playing with such agents is like that pastime known in popular parlance as "monkeying with a buz-saw." And yet constantly we read of cases of inexperienced persons endeavoring to amaze audiences by their skill in the hypnotic art. The persons who thus use this power are, undoubtedly, not aware of the dangerous weapon which they hold in their hands.

But by thoughtful, talented men of the medical profession, this agent may be used either as an anæ-

thetic or for therapeutic purposes. In their hands it may be made an instrument of good to highly-strung patients. But even these are bound to consider the effect upon the patient of this powerful anæsthetic. It must be their care to use it with caution and discretion.

We are glad to see that the New York Medico-Legal Society has set itself to a consideration of the question, and to print, in this connection, the questions which have presented themselves to their Committee on Hypnotism, as meriting consideration from a legal point of view, commending the subject in general to the earnest consideration of our readers as a subject not easily to be set aside either by skepticism or science.

The following are the questions the committee propounds:

1. Has the sensitive sought the operator, or has the operator used undue influence to gain control of him?
2. Are proper witnesses present?
3. Are possible elements of error eliminated, such as self-deception, simulation, and malingering?
4. Is hypnosis a justifiable inquisitorial agent?
5. Do we need a reconstruction of the laws of evidence in view of the perversion—visual and otherwise—created by the trance?
6. Is any revision of the Penal Code desirable in view of these facts?

Finally, should there be legal surveillance over private experiments or public exhibitions?

The committee will welcome suggestions on these or on other points, and any instructions as to methods of investigation of the matter referred to them by the society.

Annotations.

THE St. Louis *Clinique* begins its fourth volume with a new and handsome cover, fifty pages of very carefully edited matter, and all the marks of a well-earned prosperity.

PHILADELPHIA may be pretty slow; but none of her medical journals ever utilized a photograph of Agnes Huntington with a few ink scratches on it, to represent an old Irish woman of sixty years, with multiple aneurism. *Vide Boston Medical and Surgical Journal*, February 5, p. 136.

THE death of Dr. Elisha Sterling, of Cleveland, reminds us of an incident that illustrates his fertility of resource. A gentleman called to see Dr. Sterling, with epistaxis that had continued for two days, resisting all the efforts at suppression. Dr. Sterling quietly took out a piece of leather, and began scraping it with a sharp knife. When he had obtained quite a little heap of the shavings, he proceeded to pack the nostril with them. The slight swelling, when the leather was moistened, effectually stopped the hemorrhage.

IT WILL be remembered that La Verrier and Adams, one in France and the other in England, by the same line of mathematical calculation without

any communication with each other, located the new planet where it was afterward seen by the telescope, and published the results of their works at the same time. It seems now that while Dr. Koch has been quietly working in his laboratory, an American physician, Dr. Dixon, of Philadelphia, has, without any knowledge of Dr. Koch's work in pursuing nearly the same line of investigation, reached in theory, in the results obtained and in the fluid, almost identical conclusions.—*N. Y. Med. Times.*

A FINDLAY girl is said to be "puzzling the doctors." From the right eye one of them had taken fifty-four pieces of glass; and left the eye entirely clear of that material. But the next day she came back and had fifty-four more removed. We often notice these cases in the dailies, and marvel greatly at the ease with which our colleagues are "puzzled" by cases that do not appear to have anything in them to puzzle a man of ordinary common sense; much less the combined medical wisdom of the neighborhood. If Findlay were a town where the city ordinances provided a McKinley tariff on glass, so that there was none of it within the girl's reach when she felt like filling her eyes up with this vitreous substance, there would be reason to wonder. But Findlayites look through well-glazed windows, and take observations of the sun through beer-glasses, like the rest of the world.

THE MARINE HOSPITAL SERVICE.

THE report of Surgeon-General Hamilton, of the Marine Hospital Service, which now lies before us, is a document of great interest and considerable importance. Among the subjects considered, besides official business of the Department, are: The public health; quarantines, national and interstate; an account of United States and European marine hospitals; management of hospitals; aids to marine hospital management, etc. Physicians cannot fail to find on every page matter of great value. Special interest attaches to the well illustrated articles on hospitals.

From the report on marine hospital management, as well as from that on aids to hospital management, the physician may gather much that will stand him in good stead. Full lists of cases, with treatment, are given towards the close of the report. The necropsy given at the end of each fatal case should be especially studied. The conclusion at which everybody must arrive is that this department of our national service has accomplished a great work in the past year.

DA COSTA ON KOCH'S LYMPH.

AT a recent clinic at the Pennsylvania Hospital, Professor J. M. DaCosta spoke at length concerning the results of the use of the lymph. He exhibited a patient who had been pronounced a fit subject for this treatment, and had received several injections. As usual, the patient was somewhat sanguine in his expectations of benefit. The sputa had become more profuse however, and no diminution in the number of bacilli was yet manifest. The benefit accruing was but slight.

As to the general effect of the lymph, the speaker was quite positive. The question was, "Was the patient cured?" In his opinion it was much too early to claim a cure. He objected to the employment of the lymph as a means of diagnosis. Such a

proceeding he characterized as cruel and unjustifiable.

This is the verdict given by the man who has for many years represented the best aspect of that conservatism for which Philadelphia is noted. There are varying degrees of this quality among our leading physicians, but no one more happily unites enterprise in putting new ideas upon trial and cool judgment in estimating the results.

METHYLENE CHLORIDE.

AN exceedingly dangerous note appears in the current number of Merck's Index concerning methylene chloride. Under this name Sir Spencer Wells has for years employed an anæsthetic, which, according to Merck, is not the true methylene chloride, but a mixture of four volumes of chloroform with one of methyl alcohol. Wells has stated that, whatever the chemical nature of the substance supplied to him, and used under this name, it has proved in his hands the ideal anæsthetic—agreeable, sure and perfectly safe—in over two thousand cases. Now, Merck recommends that unless the English preparation is specified, the pharmacist should dispense the true methylene bichloride. The German manufacturer quotes, under the head of methylene bichloride, Wells' and Richardson's remarks concerning the English preparation, and then advises pharmacists to substitute an entirely different substance; one that has been authoritatively pronounced too dangerous for anæsthetic use. As very few of those who read Sir Spencer Wells' widely-copied statement can possibly know these facts, the result of Merck's advice may be disastrous to those who follow it. Our own advice to those who wish to employ the agent so highly lauded by Wells, is to avoid all mention of methylene in their prescriptions, and order the mixture as given above.

THE message of the Governor of Illinois contains the following reference to the State Board of Health:

The State Board of Health has proved an efficient agency in the preservation of the public health. The able and prudent manner in which the affairs have been conducted during the past two years, entitle it to the renewed confidence of the people and the continued support of the General Assembly. In recent years much time has been devoted by the Board to an examination of the water supply of the State and the pollution of its streams. A thorough study of the Illinois river basin has been made, with a view to sanitary engineering, and the pollution of that stream by Chicago sewage has been the subject of continued investigation and consideration.

With the exception of the influenza, to a study of which disease the Board devoted much time and thought, the health of the State has been unusually good. Diphtheria, scarlet fever, and typhoid fever have prevailed at times in certain localities in the State, but were generally brought under control when the instructions of the Board were obeyed. In many cases, the advice of the Board was wholly disregarded, and, as a result, a spread of the disease usually followed. The law should be amended so as to make it obligatory upon the local authorities to report promptly all diseases of this character to the Board of Health. A law of this kind would enable the Board to act promptly and efficiently in checking the spread of contagious diseases.

In addition to its other duties, the Board has given considerable of its time and attention to the work of elevating the standard of the medical profession in the State, and, as a result, the interests of the afflicted have been conserved by driving from active practice many who were not qualified to belong to this highly useful and honorable profession.

The able reports made by the Board from time to time contain valuable facts and statistics, and to these I respectfully refer you for more exact and complete information touching this very interesting and important subject.

The contingent fund appropriated by the last General Assembly has remained untouched, which proves that the Board has conducted its affairs with prudence and economy. The usual appropriation is asked at the hands of the present General Assembly, and I do not see how it can be reduced without impairing the efficiency of the Board.

Book Notices.

THE MEDICAL NEWS VISITING LIST FOR 1891. Weekly (dated for thirty patients); Monthly (undated, for one hundred and twenty patients per month); Perpetual (undated, for thirty patients weekly, per year); and Perpetual (undated, for sixty patients weekly, per year). The first three styles contain thirty-two pages of data and one hundred and seventy-six pages of blanks. The Sixty-Patient Perpetual consists of two hundred and fifty-six pages of blanks. Each style in one wallet-shaped book, pocket pencil, rubber, erasable tablet, etc. Leather, \$1.25. Philadelphia: Lea Bros & Co., 1890.

BOOK NEWS (Phila.) for February appears promptly with reviews and illustrations of the more important of the month's books, and short descriptive notices of books of less note, giving, as a whole, a clear view over the entire field of literature. Portraits and sketches of authors—Professor Drummond, Charles Carleton Coffin and Ellen Olney Kirk—a newsy letter from Boston, Talcott Williams' scholarly criticisms, with other notes and items of happenings in the book world, keep this issue up to the standard, "the best literary magazine of the kind published." The wonder is the price should be only five cents a copy. This number contains also a very good portrait of the late historian, George Bancroft.

THE CARE OF THE EYES IN HEALTH AND DISEASE. By D. N. SKINNER, M.D. Boston: J. G. Cupples, 1891. 16mo. pp. 116. Price, 75 cents.

It is a pity that this book is so badly written, as it is a very useful little manual. A careful attention to grammar and grammatical construction would have been a material assistance to the reader. But in spite of this defect we know of no book on the eye, its structure, care and cure, which is likely to prove so valuable to the layman as Dr. Skinner's book. He has left no point untouched which will help us in caring for the eye. In fact, his object has been, not to show how the eye may be cured in disease, but how it may be cared for and kept in good condition. Of special value to the large class of "old-women doctors" and friendly amateurs is the author's advice on self-treatment and its injurious results. "Poultices," he says, "unwittingly applied to inflamed eyes, have repeatedly been known to destroy the eye in a few hours. The application of tea-grounds or alum

curds, so indiscriminately indulged in, has sometimes a ruinous tendency, for it often happens that what may appear to the sufferer, or his friends, but a simple conjunctivitis has turned out to be a deeply-seated and very important malady."

The book is evidently written for the laity and must prove of great value to them.

Pamphlets.

An Interesting Pamphlet on the Cure of Stammering is issued by the Bryant School of New York city.

Use and Abuse of the Obstetrical Forceps. By Eugene Prosper Bernardy, M.D., of Philadelphia. Reprinted from *Transactions*, 1890.

Mechanical Obstruction in Diseases of the Uterus. By George F. Hulbert, M.D., of St. Louis, Mo. From *The Medical News*, December 20, 1890.

Rhus Toxicodendron in Intra and Extra-Thoracic Disorders. By Edward R. Snader, M.D., Philadelphia. Reprinted from *The Hahnemannian Monthly*, January, 1891.

A Case of Stricture Followed by Rupture of the Urethra and Extravasation of Urine. External Urethrotomy. Recovery. By J. Blake White, M.D., Physician to Charity Hospital, New York.

Remarks on the Intra-pulmonary and Subcutaneous Treatment of Tuberculosis. By John Blake White, M.D., Physician to Charity Hospital, New York, etc. Reprinted from *The Medical Record*, December 27, 1890.

Stoop and Round Shoulders; their Relation to Chest Expansion and Phthisis Pulmonalis. By Edward R. Snader, M.D., Lecturer on Physical Diagnosis at Hahnemann Medical College, Philadelphia. Read before the State Society, and Reprinted from *The Hahnemannian Monthly*, November, 1890.

The Medical Digest.

HEADACHE.—For headache and sleeplessness, I recommend the following: Cold water applied with a cloth covered with a dry one. This will bring sweet, refreshing, natural sleep.—Walker, *Dixie Doctor*.

FOR CARBUNCLE—

R.—Morphinæ sulphat.,
Cocainæ hydrochlorat. āā gr. v.
Menthol. gr. x.
Acidi carbolici solut. saturat. m. v—x.
Hydrargyri oxid. rub. ʒj.
Lanolini,
Vaselinæ. āā ʒss.

M.—Sig. Rub well into surrounding skin, and apply constantly on linen. If the pain be too severe, apply poultices.

—Alvord, *Med. World*.

CONVALLARIA is of utility in the irregularity of the heart dependent upon acute pneumonia, bronchitis, or emphysema, but is ineffective in fatty degeneration of the heart.

R.—Extr. convallariæ flor. fld. fʒij.
Syrup. aurantii. q. s. ad fʒij.

M.—Sig. A teaspoonful to a tablespoonful three times a day.

Useful in mitral insufficiency and functional heart disease.

R.—Potassii bitartratis. fʒss.
Extr. convallariæ flor. fld. fʒiiss.
Syr. simplicis. q. s. ad fʒiv.

M.—Sig. From one-half to a tablespoonful, in water, three or four times a day.

Valuable in general dropsy from heart or kidney disease.—Shoemaker, *Med. Bull*.

A TONIC—

R.—Tinc. gentian,
Tinc. quassia.....āā 3iss.
Dialysed iron,
Fld. ext. xanthoxyli āā 3j.
Fld. ext. nux vomica 3ij.
Tinc. capsicum..... 3vi.
Sherry wine.... q. s. Oj.
M.—S. Dessert spoonful three times a day in water.
—Bulloch, *Dixie Doctor*.

BURNEY YEO'S FORMULA FOR COTO.—

Fluid extract of coto 60 minims.
Compound tinct. of cardamom.... 60 "
Mix these together, and slowly triturate them with :
Mucilage of acacia..... 3 drachms.
Simple syrup 2 "
Add enough water to make 6 fluidounces. Dose, a table-
spoonful.
—*Med. Bull.*

THEBAINE, NARCOTINE, AND THEIR DERIVA-
TIVES.—Thebaine stands at the extreme limit of the
morphine group, and resembles strychnine more
closely than morphine. The slight preliminary nar-
cotic stage after small doses is the only difference in
the action of thebaine and strychnine.
Narcotine's action is similar to that of morphine,
but much weaker.
Hydrocotarnine and cotarnine resemble narcotine,
but require much smaller doses for either tetanic or
narcotic stages.
Meconoïsin simply stimulates the spinal cord.
—Stockman, *Brit. Med. Jour.*

BAMBOO SPROUTS are served as the favorite dish in
this country, and have been analyzed and found to
contain the following constituents :

Nitrogenous matter.	1.82
Non-nitrogenous organic matter.....	5.64
Fat.....	0.12
Vegetable fibrin.....	1.42
Ash.....	0.74
Water	90.26

But bamboo seed was never used as food till this
year, when in Nishi-tama kōri, Saitama ken (prefec-
ture) an unusual amount of the seed was produced ;
and, as the price of rice became high, the people
used bamboo seed as food in place of rice. It is said
to be better than rice.—*Sei-i-kwai*.

THE BEST METHOD OF ASEPSIS.—The operator
must fulfill a double task. He must protect the
fresh wound from contact with microbes, and he
must scrupulously guard the vitality of the tissues
of the wound.
The first task can be sufficiently fulfilled by most
carefully sterilizing everything which enters into con-
tact with the wound : sterilization of the field of op-
eration, sterilization of our own hands and fingers,
of instruments, of the materials of ligature and
suture, of the tampons and sponges, of the dressing,
etc. It has been conclusively shown that the air is
very little dangerous for the wounds : Braatz has
shown that bacteria multiply in closed wounds and
within the human body as anærobcs and produce
toxic formations (ptomaines) in the absence of ox-
ygen.
The second part of the task can be accomplished
by discarding, as much as possible, all the mechan-
ical and chemical agents which might impair the

vitality of the tissue : as, for instance, the useless
employment of sharp or blunt retractors, the bruising
of soft parts by badly-applied hemostatic forceps,
and finally by introducing into the wound itself, or
into a cavity, foreign bodies or cauterizing sub-
stances, such as most of our antiseptics.
—Bernays, *The Clinique*.

SEXUAL ETHICS.—The sexual relation is a natural
want produced through the necessity of self-preserva-
tion. The human soul yearns to live ; it yearns to
grow and to multiply. In the face of death it longs
for immortality, but immortality is not granted to the
individual, and, in order to become immortal, an in-
dividual must grow beyond the limits of individual-
ity. The natural consequence of these conditions is
that immortality can spring from love only. Immor-
tality must be gained by sacrifice, it must be taken
by conquest, and there is but one power that can
gain immortality. It is that power of which the Song
of Songs says, "it is stronger than death." That one
power is the holiness of the sexual relation ; it is
matrimonial love.
If we deprive sex-relation of its sanctity, it sinks
down far below the most brutish acts of lowest animal
life. Human sex-relation, in which the spiritual ele-
ments of love and an exchange of soul are lacking,
degrades man and more so woman ; it deprives them
of their sanctity, and sullies the holiest emotions they
are capable of—the longing for immortal life. Ani-
mal sex relations are at least natural. Animals yield
to their natural wants without any consciousness of
their importance or consequences. In the absence
of thought, it is nature that acts in them. Immoral
men and women, who prostitute the holiest senti-
ments because they imagine they find a pleasure in so
doing, cease to remain natural, and accustom them-
selves artificially to unnatural wants which weaken
their bodies and poison their souls.
—*The Open Court*.

MENIÈRE'S DISEASE.—In Menière's disease the
source of irritation may sometimes be in the semicir-
cular canals, just as sometimes it may be in the eye
or in the stomach ; but the immediate cause of the
vertigo cannot be there, for several reasons.
First : If my explanation of the nature of vertigo
be correct, it is a condition dependent upon the har-
monious interaction of the sensori-motor centers of
the cortex, and disturbance of these is the real cause
of the vertigo.
Secondly : If equilibrium depended solely upon the
semicircular canals, there could be no rational ex-
planation for the ocular and stomachal vertigos.
Thirdly : If the proximity of the various nuclei
within the médulla be a sufficient explanation of the
association of the symptoms, vomiting, unconscius-
ness, vertigo and loss of hearing, when the semicir-
cular canals are affected, why, we may justly ask, do
we not in stomachal, lithemic and other vertigos
have more marked auditory symptoms ?
Fourthly : Experimental injury to the semicircular
canals is not followed by true vertigo, loss of hearing
and the other constant symptoms of Menière's disease.
Fifthly : Pathological data do not entirely and
satisfactorily support Menière's hypothesis. His only
case with autopsy can easily be explained upon other
grounds, and nearly all of the other cases reported by
Politzer, Voltoline and others had severe cerebral
lesions, sufficient to account for the symptoms pre-
sented.

Finally, it is to be noted that of Bezold's carefully collected 46 cases of necrosis of the labyrinth, only 12 manifested symptoms of vertigo.

—Mettler, *Jour. Nervous and Mental Diseases*.

BROMOFORM.—For several months the only treatment in our clinic for whooping-cough has been bromoform. The method of administration has been to prescribe one or two drachms pure, and give one to four drops in a teaspoonful of milk three to five times a day, according to age and severity of disease, and, moreover, to give special instructions that the *last remnant* be given from the spoon, as bromoform does not mix, but sinks to the bottom. A happy feature is its sweetness.

Being entirely ignorant of its physiological effects, like all of us, I determined to "try it on the dog first," as some of us must. Feeling in perfect health, I took an initial dose of ten drops; no perceptible effects. In one hour, fifteen drops more; nothing experienced in regard to respiration, pulse, or temperature, but slight swimming sensation in head. In another hour, another dose of fifteen drops; pulse slightly slowed, temperature and respiration normal, expectoration free and liquid. Very dizzy in head and somewhat nauseated and general feeling of malaise, all of which was very transitory, so that in one hour I felt as well as before. The first sweet taste of the drug lasted but a very short time, giving way to a burning sensation of the tongue, which became very severe, such as capsicum produces. Food had no taste, and the throat reflex was entirely abolished, so much so that after twelve hours the index finger could explore the entire fauces without the least unpleasant sensation. I felt more of those structures digitally than I had thought possible, except under general anæsthesia.—Kreiger, *Tex. C.-Rec. Med.*

VIRCHOW ON CATARRHAL PNEUMONIA.—Catarrhal pneumonia, as ordinarily met with in phthisis, exhibits a moderately fluid collection in the alveoli, which can only be slightly expressed from them. Sometimes the contents are much more watery, like brine, and it was this which led Laennec to speak of gelatinous infiltration preceding tubercular infiltration. But the product in these cases is not gelatinous; it is rather watery and turbid; it might be called cloudy infiltration, and calls to mind a *phlegmonous* condition. In some parts it is more opaque; in parts it has a superficial likeness to caseation, but without its dry character, and there is no difficulty in distinguishing the two. The catarrhal phlegmonous condition is softer, moister, and laxer, as in a specimen shown, where around large ulcerating cavities in the apex of lower lobes were caseous masses and catarrhal inflammation. Two other specimens also showed caseous and catarrhal hepatization, which condition occurred in seven out of the sixteen cases examined last year. A further point of difference from ordinary catarrhal hepatization consists in the occasional occurrence of areas of softening in the midst of the hepatized foci, producing rapid excavation; for instance, in the middle of the lower lobe, just as in gangrenous broncho-pneumonia. This result seems to point to the operation of a stronger irritant than that which is usually regarded as the cause of catarrhal pneumonia. Prof. Virchow is of opinion that, in some of these cases at least, the inflammatory processes are analogous to those excited in the external parts after injection, which vary in intensity with the individual and the special features of the case.—*Lancet*.

TREATMENT OF PLACENTA PRÆVIA.—Kolff and Treub (*Nouvelles Archiv. d'Obstet.*) record the results of this malpresentation, as observed by them at Leyden. Between 1856 and 1879, 26 cases of placenta prævia were noted by Dr. Kolff, with a mortality of 42 per cent. On the other hand, between 1887 and 1889, Professor Treub has observed 13 cases. In all of this series he performed combined version, losing only one patient. The fatal case cannot fairly be attributed to the method of delivery, for the woman died of pyæmic phlebitis, set up by a dirty sponge which the midwife introduced into the vagina to check the hemorrhage before version was performed. Hence the mortality did not amount to 8 per cent. Of the children, 8 (or 61 per cent.) died, but 4 must be subtracted, as the heart sounds could not be heard before version; thus the precise mortality was 30 per cent. During childbed bad results were observed only in cases that had been previously examined by midwives, except in one instance, where the vagina had been plugged with sterilized absorbent gauze instead of iodoform gauze. The great principle of practice at Leyden is to separate version from extraction. The former is undertaken in order to save the mother. It is only in cases of subsequent hemorrhage that extraction by the feet is carefully undertaken. Dr. Kolff praises that practice, as it renders interference practicable very early in the labor, before the mother is exhausted by hemorrhage, saves her from the risks of prolonged plugging, and allows the later part of labor to continue slowly and yet without danger. The risk of *post-partum* hemorrhage is thus greatly lessened. The risk to the child is theoretically great, yet the above statistics prove that the infantile mortality is not very high.—*Brit. Med. Jour.*

DR. WOOD ON ANÆSTHESIA.—It seems to me that certain general facts or principles in regard to anæsthesia must be considered as established:

1. That the use of any anæsthetic is attended with an appreciable risk, and that no care will prevent an occasional loss of life.
2. That chloroform acts much more promptly and much more powerfully than ether, both upon the respiratory centers and the heart.
3. That the action of chloroform is much more persistent and permanent than that of ether.
4. That chloroform is capable of causing death either by primarily arresting the respiration, or by primarily stopping the heart, but that commonly both respiration and cardiac functions are abolished at or about the same time.
5. That ether usually acts very much more powerfully upon the respiration than upon the circulation, but that occasionally, and especially when the heart is feeble, ether is capable of acting as a cardiac paralyzant, and may produce death by cardiac arrest at a time when the respirations are fully maintained.
6. Chloroform kills, as near as can be made out, proportionately three to five times as frequently as does ether, partly, no doubt, because it is more powerful in depressing the heart, but largely because it lets go its hold much less rapidly than does ether when inhalation ceases. Is it not possible that this "holding on" is because it is less volatile than ether, and cannot we here get a hint why chloroform is less deadly in the South than in the North? The diffusibility of vapors or gases is in inverse proportion to the square of their densities, and the vapor of chloroform would certainly diffuse itself with far greater rapidity at 90° F. than at 70° F.

H. C. Wood *N. E. Med. Monthly*.

SURGICAL TREATMENT OF ERYSIPELAS.—The object of treatment is to bring the *coccus* of erysipelas, as it travels in and along the lymphatics, in contact with antiseptic fluids. Among some of the methods proposed have been the injection hypodermically of a two per cent. solution of carbolic acid, or a solution of resorcin, twenty grains to the ounce, the injection being made at the junction of the normal and the inflamed skin. This latter treatment has met with more or less success.

Volkman's assistant, Kraske, modified this treatment by making incisions on the border of the erysipelas, extending them into the normal skin. These first incisions were crossed in a diagonal direction by others, so that when the operation was completed it presented somewhat the appearance of a rail fence. The object of this treatment was to allow the antiseptic fluid to reach the *coccus* in and around the lymphatics; it also tended to render and keep aseptic the part likely to be next attacked by the disease. The wound was dressed with a moist dressing of carbolic acid or one of the mercurial solutions, and the dressings were kept wet with the antiseptic solution.

Reidel and Lowenstein (*Deutsch. Med. Woch.*, March 14, 1889) improved the method of Kraske's by confining the fence of incision to normal tissue, about one or two inches from the border of the erysipelas. Their object was to prevent possible infection of an aseptic part. This treatment has given better results than either of the others.

As in all operations performed at the present time, the rules of antiseptic surgery should be strictly followed. With the exception of very young children and nervous women, I do not consider an anæsthetic required, as it takes but a very few moments to make the "fence."—Rogers, *Brooklyn Med. Journal*.

WHAT IS PAIN?—It was John Hilton, I think, who gave expression of greatest import to a truism in regard to pain, that is well worthy of our remembrance. Indeed, he has so forcibly written upon this subject in his valuable work of "Rest and Pain," that he has been quoted upon this subject more often than any other writer. He declares that "every pain has its *distinct* and pregnant signification if we will but search for it;" that "pain, the monitor, and rest, the cure, are *starting* points for contemplation."

In this connection it may not be out of place to consider, but for a moment, something of the nature of pain; its laws of production and conduction; of radiation and reflection, as having direct bearing upon our case.

Buzzard has defined the term pain, "a representation in consciousness of a change produced in a nerve center by a certain mode of excitation."

Accepting this definition, as we do most as merely a "*working* definition," we observe that it presupposes a knowledge of at least two histological structures, viz., a kind that is susceptible of being excited and conveying impulses, as the nerves and their terminations; and secondly, structures capable of receiving impulses conveyed by these nerves, viz., *centers*, both of cord and brain. It is to be understood that the cause or place of the irritation of any pain may be located any place between the centers and nerve terminations; but by the "law of peripheral reference of sensations," as it is called, the pain is invariably referred to the peripheral end of the nerve of one or more of its branches. This law is most emphatically and wonderfully observed after amputations, and our surgeons tell of many interesting incidents in this connection.—Beebe, *Lancet Clinic*.

SOME RECENT DECISIONS IN MEDICAL JURISPRUDENCE.—Some recent decisions may be briefly summarized as follows:

In Georgia the sorrow of a woman over her miscarriage is not a ground for damages.

In Tennessee a man cannot be punished for taking part in a duel on Arkansas soil.

In Kansas cemeteries do not last forever, but can be abandoned, and the land used for other purposes.

In California the Legislature can properly direct that the scholars in the public schools shall be vaccinated.

A Maryland court has declared that no plumber shall practise his profession in Baltimore without a certificate from the Commissioners of Practical Plumbing.

In Massachusetts it is not proper for a Catholic priest to forbid the members of his church to employ a certain physician.

In Indiana mental anguish is a good ground for a verdict for damages for neglect in delivering a telegram.

In Kentucky oral evidence of a dying declaration can be given when a written statement made by the injured man has been destroyed by the accused.

In Massachusetts "Dr. Spencer's Queen of Pain," and "Spinal Paste or Salt Rheum Cure," are not valid trade marks; and in Texas "Microbe Killer" is likewise not the exclusive possession of a single manufacturer.

In North Carolina a woman who has had sexual intercourse with a man, but has long since repented, is an "innocent" woman in the eye of the law.

In Illinois a very young child straying into a dangerous place and getting injured, can recover damages, the negligence of the parents not being imputed to it.—Riley, *Med. Record*.

DEMENTIA PARALYTICA.—1. A positive diagnosis can be made, I believe, from the speech alone, but perhaps it is too much to ask the general practitioner to risk so much on one symptom. Impaired speech with unequal motionless pupils, high reflexes, and slight mental symptoms should, however, oblige the physician to make a diagnosis, and remove the patient from business.

2. Fixed, small, or unequal pupils, with changes in character, increased reflexes, and confusion in manner, should lead to a suspicion of dementia-paralytica. Even the small fixed pupils alone should, I think, excite suspicion, and lead to careful observation of the patient.

3. Mental slowness and inaccuracy, with any one of the symptoms referred to, should cause a strong suspicion of incipient "paresis." The same is true of inexplicable changes in the moral character of a subject above twenty years of age.

4. Dementia-paralytica is, I might add, much more frequent among women than is generally held by authorities. They can more easily cover up signs of mental failure, and they seldom exhibit exaltation. Guided by the points I have given as of great diagnostic value, you will be able to recognize a good many female cases.

5. A general character of great value is the gradual slow onset of symptoms. When an adult rapidly becomes demented (foolish in manner, inattentive to his person, even to the point of not controlling his evacuations), has unequal pupils, and large quasi-choreic ataxic tremors with early convulsive seizures, it is possible that the case is one of cerebral syphilis, which may be cured by heroic treatment.

6. You should not be discouraged in your diagnosis by an apparent return to health after a few months, because extraordinary remissions, lasting several months, occur in the course of dementia-paralytica.—Seguin, *Boston Med. and Surg. Jour.*

A NEW OPERATION FOR SPASMODIC WRY-NECK.—*First step.*—The field of operation having been shaved and disinfected, make a transverse incision about a half an inch below the level of the lobule of the ear, from the middle line of the neck posteriorly, or even slightly overlapping the middle. This incision should be $2\frac{1}{2}$ to 3 inches long.

Second step.—Divide the trapezius transversely.

Third step.—Dissect up to the trapezius, and find the occipitalis major nerve as it emerges from the complexus and enters the trapezius. In the complexus is an intra-muscular aponeurosis. The nerve emerges from the complexus at a point between this aponeurosis and the middle line, usually about a half inch below the incision, but sometimes higher up, and then enters the trapezius. It is always a large nerve of the size of a stout piece of cat-gut, and it is easily found if sought for at the right place.

Fourth step.—Divide the complexus transversely at the level of the nerve. This division should be made by repeated small cuts, so as not to cut the nerve which is our guide, after which dissect the nerve still further down from the anterior surface of the complexus, where it arises from the posterior division of the second cervical. Cut, or better, exsect a portion of the posterior division before the occipitalis major arises from it, so as to catch the filament to the inferior oblique muscle. This divides the *second cervical*.

Fifth step.—Recognize the inferior oblique muscle by following the suboccipital nerve towards the spine. The nerve passes immediately below the border of the muscle.

Sixth step.—Recognize the suboccipital triangle formed by the two oblique muscles and the rectus capitis posticus major. In this triangle lies the suboccipital close to the occiput. It should be traced down to the spine itself, and be divided, or better, exsected. This divides the *first cervical*.

Seventh step.—An inch lower down than the occipitalis major, and under the complexus, is the external branch of the posterior division of the third cervical to the splenius. When found, it is to be divided or exsected close to the bifurcation of the main trunk. This divides the *third cervical*.

A drainage-tube and horse hairs are to be inserted, and as the patient lies on the back, although the wound is very deep, the condition is most favorable for good drainage. If desired, the posterior muscles can be united by buried sutures, independently of those in the skin. The after treatment is the same as for ordinary operations.

—Keen, *Annals of Surgery*.

METHODS FOR THE PREPARATION OF THE GOLD AND IODINE SOLUTION FOR THE SHURLEY-GIBBES METHOD OF TREATMENT OF TUBERCULOSIS.—In making the solution of gold and sodium, the first step is the preparation of pure gold. I take an English gold coin of recent date, which is composed of one part of copper and eleven parts of gold, and thus avoid the trouble of an insoluble chloride of silver which sometimes interferes, where the alloy consists of part silver; to the coin in small pieces add eight parts of nitro hydrochloric acid (four parts hydrochloric to one part nitric acid) chemically pure; this solution is then evaporated on the water bath with

an excess of hydrochloric acid to nearly dryness; it is then treated with hot water and filtered, to separate any chloride which might be present. To this solution is added a solution of pure oxalic or formic acid, which will cause the precipitation of any gold which is present, in the form of a brown or greenish-black powder, in from one to forty-eight hours.

This powder is collected and boiled in dilute hydrochloric acid sp. g. 1.1, and then washed and dried. To the powder is added eight parts of nitrohydrochloric acid, and the solution evaporated on the water bath to nearly dryness, and allowed to crystallize. Too much heat here or too long evaporation is apt to give an aurous or an acid chloride Au Cl or Au H Cl_2 , either of which must be avoided.

The result, if the manipulation be properly conducted and the water of crystallization driven off, leaves ruby red, prismatic crystals, and not the orange red crystalline needles of commerce.

The next step is the manufacture of the chloride of gold and sodium. The common salt usually contains portions of Ca Cl_2 , Mg Cl_2 , and Ca S O_4 . I either make the salt from an anhydrous carbonate and hydrochloric acid, or dissolve it in four times its weight of pure water and add to the filtered solution first Ba Cl_2 , and then Mg Co_3 , as long as any precipitate falls, filter and evaporate very slowly, skimming off the first crystals that form, and rejecting them; those forming last are the pure salt.

Take of the gold chloride eighty-five parts, and the Na Cl sixteen parts, and mix each separately in a little pure water; stir together, and allow to crystallize at a low temperature, which will give orange-colored rhombic prisms.

Similar precautions are necessary in the preparation of the iodine solution, as the iodine of commerce all contains more or less impurities, in the shape of graphite, chlorine, oxide of manganese, and crude antimony. To prepare it perfectly pure on a small scale, place some in a small deep porcelain scale or earthenware dish, and cover it air-tight with a glass matrass filled with cold water, and apply to the dish a temperature of about 100°C . for two or three hours; allow to cool, and the sublimate will be found attached to the under surface of the matrass. It is best, however, to expose the matrass after about twenty minutes' exposure to the heat, and look for acicular prisms of a white color and pungent odor; if these are present they should be scraped off with a glass rod and rejected; afterwards, the sublimation is to be carried on until it is complete. The fresh iodine is then to be kept in glass stoppered bottles.

To make a non-irritating solution of the iodine for hypodermic use, it was found necessary to combine it with water and glycerine. This is accomplished through the medium of potassic iodide. A sufficient quantity, to just produce solution, is added to the water and iodine. The glycerine is subsequently added.

To purify the potassic iodide, which contains a carbonate and iodate, it is only necessary to dissolve in ethylic alcohol, and filter.

The carbonate and iodate are both insoluble in this solvent.

I have here sketched as briefly as possible the methods pursued by me in the manufacture of these solutions; of course, there are many more details in the way of manipulation, etc., which have not been mentioned, but these will occur to any one qualified to undertake their manufacture. Sterilized distilled water is used in all operations.

—Clark, *N. A. Pract.*

Medical News and Miscellany.

A WISCONSIN woman has been asleep for three weeks, despite the efforts of several doctors and an electric battery.

IN answer to a correspondent whose letter has been mislaid, we would state that Fagge's Practice costs \$8.00, and Landois' Physiology, \$6.50.

SOCIETY AND SOCIETIES.—Mr. Coenties (to visiting friend)—“That gentleman yonder is one of our most prominent society leaders.”

Mr. Dearborn—“Indeed, and what is his society for the prevention of?”—*Puck*.

THE fifth regular session of the Harlem Medical Association was held in New York, on Wednesday the 4th. The following subjects were discussed: “Spinal Lesions,” “Some Interesting Cases of Pleurisy.” There was also an election of members.

WE are in receipt of the report of the Illinois State Board of Health, on the subject of medical education. Whoever is interested in the regulation of the practice of medicine and the proper instruction of candidates for the medical profession, will find much of interest and value in this report.

THE following varnish will maintain its transparency, and the metallic brilliancy of the articles will not be obscured: Dissolve ten parts of clear grains of mastic, five parts of camphor, five parts of sandarach, and five parts of elemi in a sufficient quantity of alcohol, and apply without heat.

THE most expensive thermometer in this country is in use at the Johns Hopkins University. It is known as Prof. Rowland's thermometer, and is valued at \$10,000. It is an absolutely perfect instrument, and the graduations on the glass are so fine that it is necessary to use a microscope to read them.

DURING the past two years there have been two thousand four hundred and ninety-nine cases of diphtheria in the city of St. John's, Newfoundland, with a population of thirty thousand, which shows that about one in every twelve was attacked by the terrible disease. It is estimated that the rate of mortality was one out of every five attacked.

DOCTOR BENJAMIN LEE, Secretary of the State Board of Health of Pennsylvania, has accepted the position of Secretary of the Section on State Medicine of the American Medical Association.

As the meeting takes place in Washington, May 5th, it is important that all papers intended for this Section should be in his hands by the fifth of April. All members of the Association desiring to be enrolled in the Section are requested to forward him their names at 1532 Pine street, Philadelphia.

THE fifth State Sanitary Convention of Pennsylvania will be held at Altoona, Friday and Saturday, May 15th and 16th, 1891, under the auspices of the State Board of Health, assisted by the Board of Health of Altoona and a committee of citizens. This is not in any sense a doctors' convention. All who take an intelligent interest in the promotion of sanitary reform and the protection of the public health are invited not only to be present and take part in the discussions, but forward to the Secretary, Dr. Benjamin Lee, 1532 Pine street, Philadelphia, for consideration by the committee of the Board, not later than April 15th, papers on sanitary or hygienic subjects which they would like to present before the convention.

AN Army Medical Board will be in session in New York city, New York, during April, 1891, for the examination of candidates for appointment in the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the Board will make application to the Secretary of War, before April 1, 1891, for the necessary invitation, stating the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from whence they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal knowledge, from at least two physicians of repute, as to professional standing, character, and moral habits. The candidate must be between twenty-one and twenty-eight years of age, and a graduate from a regular medical college, as evidence of which his diploma must be submitted to the Board.

Further information regarding the examinations may be obtained by addressing C. Sutherland, Surgeon-General United States Army, Washington, D.C.

EXAMINATION QUESTIONS AT THE COLLEGES OF GREAT BRITAIN AND IRELAND (*Hospital Gazette*).—It has been suggested to us that copies of the answers given by students at the written examinations of the various qualifying bodies would be of great value to students preparing for examination, especially as showing how far one may deviate from absolute correctness without bringing down upon their heads the awful sentence, “Rejected.” We are glad to be in a position to fall in with this suggestion. Through the courtesy of certain officials we are able to reproduce *verbatim et literatim* a number of answers given by candidates to papers set for qualifying examinations. For obvious reasons we cannot reveal the name of the college or university at which any of the papers we propose publishing were given, and we shall be very careful not to give any clue which may lead to the identification of the candidates.

Students preparing for examination will find it worth their while to study the answers published by us from time to time in conjunction with the best text-books on the respective subjects, and then, by way of practice, write out from memory the answers they would give if the same or similar questions were given to them when under examination. They will find such an exercise most instructive; perhaps more so than a lesson in class with the regulation “grinder.”

EXAMINATION NO. I.

PART I.—ANATOMY.

The paper contained the following four questions, of which the candidates were expected to answer three:

1. Describe the component parts of the Tongue, the nerves which supply it, their course and distribution.
2. Mention the Arteries which supply the Brain, their origin and course; and state how the circle of Willis is formed.
3. Describe the course and relative Anatomy of the œsophagus.
4. Describe the method of making a lateral section of the Male Pelvis, so as to retain the natural position of the viscera; and describe the relation of the viscera and fasciæ as seen when the section is completed.

Full marks = 100; minimum pass = 50.

Candidate A. B. gave the following answers, for which the examiner very considerably gave him 55 marks; but unfortunately he came to grief in the oral part of the examination. Our readers will, doubtless, observe that A. B.'s spelling was not altogether according to Cocker.

Ans. to Question 1.—"The Tongue is a muscular organ, situated within the cavity of the mouth, and composed of various sets of muscles covered by an epithelium, which is of a tessellated or squamous character. The muscles entering into its formation are Geniohyoid, Hyoglossei, Genio-hyoglossei, Lingualis; attached to its roots on either side Styloglossei and Palatoglossei.

"*Nervous Supply (a).*—Hypoglossal, or true motor nerve of the Tongue, arises low down in the corpus of the medulla oblongata, passing through the cranium and lying below the digastric triangle of the neck, passes in under the post. belly of Digastric, and is distributed to the various muscles of the tongue lying between the Mylo Hyoid and Hyoglossus.

"(b) Lingual, or Gustatory from 3d division of the 5th, is given off after it has passed through the foramen ovale, lying between the inner border of lower jaw and pterygoid muscle, passes along the side of the tongue, and is finally distributed to the Papillæ Conicæ, Feliforme, and Fusiforme.

"(c) Glossopharyngeal, one of the divisions of the 8th, arises from the corpus restiforme and olivary body of medulla, enters the neck through the Foramen Jugulare, passes away to the posterior border of tongue lying on the internal Pterygoid, and is finally distributed to the Papillæ Fungiforme and Circumvallate at base of tongue."

Ans. to Question 2.—"The arteries supplying the Brain are the two internal Carotids given off from the common carotids, and the two vertebral from 1st part of the Subclavian. The internal carotid is one of the bifurcations of the common carotid, at the superior cornu of the Thyroid cartilage, and takes a direction upwards, backwards, and outwards, entering the cranium through the carotid canal in the temporal bone dividing into Anterior, communicating or cerebral middle cerebral and posterior communicating as well as transverse. The vertebral enters the cranium through the Foramen magnum, and becomes the basilar which is embraced on either side by the 6th nerve, branches given off are various: Dorsalis spinæ Anterior, Pontii's posterior, cerebral, and superior and infr. cerebellar, as well as lesser menigeal arteries. The circle of Willis is formed by the transverse posterior communicating from Int. Carotid, and by the Posterior Cerebral given off from the Basilar."

Ans. to Question 3.—"The Œsophagus is the muscular tube conveying food from the bag of the Pharynx to the stomach, which is known as the cardiac orifice. It passes out through the upper outlet of the Mediastinum, or Thorax, behind the Trachea and recurrent of the Pneumogastric, lying first to the right side of the aorta; then anterior to it, and, finally, for the rest of its course to its left side, passing through the elliptical opening of the diaphragm known as muscular or Œsophageal. It lies on the posterior mediastinum, having the left pneumogastric anterior to it and the right behind. Is composed of involuntary muscular fiber, having an external or longitudinal coat. Middle of circular Internal mucous covered by epitiletium of the columnar or cylindrical character. It lies upon the Longus Colli and the vertibræ dorsal. Supplied by branches from the Aorta and from the gastric and splenic."

This candidate fought shy of Question 4.

Candidate C. D. also fought shy of Question 4, but the others he answered as follows. He thought he was hardly dealt with, as the examiner only gave him 45 marks, and thus pulled him up sharp. No doubt he would have received a higher number of marks had he not omitted to give his authority for the extraordinary statements made.

Ans. to Question 1.—"The Tongue is a muscular and highly sensitive organ. It is composed of Hyoglossus, Styloglossus, and Genioglossus. In the post. part you have a no. of papillæ, the circumvallate. These range from 10 to 12 in no., and each is surrounded by a little fossa. In the middle you have papillæ called Fungiform, in the sides and tip you have a lot of little thread-like things—the filiform papillæ. These are covered by a very delicate membrane, which is very highly sensitive. Scattered through the substance of it you have a lot of little things called follicles, also a few lymphatics, and the lingual artery ramifying in it, and its veins. *Nerves.* Glossopharyngeal supplies the back part of dorsum and posterior part. The Gustative of 5th supplies the tip and slightly the edges. The lingual or hypoglossal nerve supplies the middle portion. Two of these are nerves of special sense, the other of motion."

Ans. to Question 2.—"Vertebral and Int. Carotid. The vertebral enter at the foramen magnum, pass round the cerebellum, give off the post. inferior, superior, and anterior superior cerebellar arteries; these unite to form basilar, then the posterior cerebral is given off which makes a little semicircle backwards, then ant. cerebral and post. communicating, then middle cerebral, then comes in contact with internal carotid beside the 2d and 3d nerves, then forms ant. communicating, then gives off the anterior cerebral to the front lobes of the brain; and thus a continuous supply of blood is always carried to a man's brain, which at times of examination is very necessary. I forgot to mention that the vertebrals give off a few spinal branches. The internal carotids are a bifurcation of common carotid, and the vertebral enters first 6th C. Vert. and passes up transv. processes of sp. column, then winds round and passes in at foramen magnum."

Ans. to Question 3.—"Œsophagus lies on vertebral column above and rather to left side and behind the trachea, then passes into thorax, where it is behind the divisions of the trachea. In front of it you have first the aorta transverse part, and then, as it goes lower in the thorax, it gets more to the left of the sp. column until it reaches diaphragm. So that at first it is covered by the trachea also by the sheath of the carotid vessels and their contents, viz.: Pneumogastric and sympathetic (certainly not altogether, but in part). The jugular vein would also be in front of it, the recurrent laryngeal nerve would cross over it, not close by, but superficially. It would also have in front of it the muscles attached to the Hyoid bone. Also over it would the innominata vein also the suprascapular artery would cross it. The Thyroid gland covering the trachea would also cross it. To its right side would be the spinal column and the thoracic duct, also the transverse aorta would slightly overlap it, and then the descending aorta would be on its side. It lies at first on vertebral column, and rather to left side, and then in the lower part of thorax it is at the side of the vertebral column, and then passes through the opening in the diaphragm along with the two pneumogastric nerves."

Candidate E. F. also avoided Question 4, and like "A. B." was rather shaky in his spelling. He was, unfortunately, rejected, the examiner awarding only 40 marks.

Ans. to Question 1.—"The tongue is composed of a mass of muscular structure, cellular tissue, papillæ nerves, arteries, veins, and covered with mucous membrane, which is covered with epithelium. The nerves which supply it are the gustatory glosso-pharyngeal (*sic*) Hypoglossal. The course of the gustatory, commencing at the Inferior Division of the 5th nerve (cranial), courses along the sides beneath the lower maxilla, to be distributed on the anterior and antrolateral (!) parts of the tongue. The Glosso-pharyngeal nerves part of the eighth cranial course from the medulla oblongata to the cranium, from whence it issues through the jugular foramen, to be distributed to the posterior and lateral parts of the tongue. Hypoglossal or ninth cranial nerve issues through the condyloid foramen of the occipital bone, to be distributed to the tongue."

Ans. to Question 2.—"The arteries which supply the brain are the two vertebrals and two Internal Carotids. The origin of the Vertebral Arteries are from the Subclavian Artery, and courses along the side of the neck in the foramina at the root of the transverse processes, and, finally, the arteries join and form the basilar artery. The origin of the Internal Carotids are from the common Carotid; opposite the thyroid body they course along the side of the neck external to the pharynx and larynx, then along the carotid canal of the temporal bone, when the two unite with the basilar artery to form the circle of Willis."

Ans. to Question 3.—"The course of the œsophagus is commencing at the œsophageal opening in the pharynx, it courses along behind the trachea and bronchi, but in front of the bodies of the Cervical Vertebrae (lower five), and all the dorsal vertebrae, inclining a little to the left side in the cervical region; but again gaining the middle line, then inclining a little from the median line untill it finally ends by being prolonged into the cardiac end of the Stomach."

Candidate G. H. also avoided Question 4. He answered the first three, however, as he thought splendidly, and was much surprised when he learnt that he had been rejected. His disgust would have been much more intense had he known that the examiner only awarded him 20 marks for the following encyclopædic but somewhat "mixed" production.

Ans. to Question 1.—"The Tongue. Structure erectile tissue, composed of muscular fibres with lingual muscles lined with mucous membrane containing follicles, glands and papillæ scattered over surface. Papillæ divided into three classes 1 Calyciform, 2 fungiform, 3 conical. The first of these on the dorsum, the 2 on the tip and side, and 3 the dorsum. The blood by the lingual, the nerves by the lingual and gustatory."

Ans. to Question 2.—"Brain arteries Supraorbitalis thro' the supraorbital notch ciliary posterior, about 20 thro' the Sclerotic coat, to choroid coat ciliary processes and circle of iris. Internal carotid. The two vertebral which terminate in the Basilar 3° part of ophth° artery, thro' post foramen to dura mater and nasal fossæ Ethmoidal ant' to frontal sinus, nares Palpebral superior and inferior. Nasal anast^{om} with terminal branch of facial, Frontal to inner part of forehead. Art. Comm^s Post' (Willis) runs backwards along outer side of pituitary gland, and Corp. Mamill joins post' cerebral artery, which is branch of basilar; Choroid backwards and outwards along optic fascia enters lateral ventricle through great fissure ant' cere-

bral anast^{om} with its fellow by means of Art, comm^s runs to corpus callosum, supplies hemisphere Middle cerebral in the fissure of Sylvius to ant' and middle lobes Posterior cerebral to Thalami Tubere. Quadrigeminus, joined by comunicans of Willis, Ant' cerebral sup' surface of cerebellum Int' auditory, thro' the internal meatus to int' ear posterior cerebral, from vertebral thro' 9 pair of nerves in front of 8th pair to posterior part of cerebellum."

Ans. to Question 3.—"Æsophagus descends from pharynx to left side behind trachea, through arch of Aorta, little in front of Thoracic Aorta, perforates diaphragm, terminates in cardiac extremity of stomach; on surfaces are found pneumogastric nerves. It is composed of longitudinal fibres (muscular) lined by mucous membrane circular at cardiac end."

SOCIETY OF APOTHECARIES OF LONDON.

FINAL EXAMINATION FOR THE DIPLOMA IN MEDICINE, SURGERY, AND OBSTETRICS. NOVEMBER, 1891.

Medicine.—1. Discuss the significance of epigastric pulsation, giving the conditions that may produce it, and their differential diagnoses. 2. Give the clinical history of a case of chronic gastric ulcer, and the treatment you would adopt if perforation were threatening. 3. Describe a new-born syphilitic baby, and the treatment to be followed. 4. Give the differential diagnosis between scarlet fever and measles, and the sanitary precautions to be used in either case, respectively. 5. Describe a case of herpes zoster, and the complications that may occur. 6. Enumerate the causes of hæmoptysis and the means of arresting the hemorrhage.

Therapeutics.—1. Illustrate by examples the uses of belladonna and atropine. 2. What are the therapeutic effects of alcohol? In what cases and by what methods is it most useful in fever?

Pathology.—Give the minute changes occurring in cirrhosis of the liver. 2. Describe the morbid changes occurring in the body in advanced cases of gout. 3. What conditions lead to hypertrophy of the heart, and its separate cavities?

Surgery.—1. A patient complains of pain and difficulty in defecating and passes blood per anum. What might be the cause, and how would you diagnose his disease? 2. Give the signs of osteo-arthritis of the knee joint. How would you distinguish it from Charcot's disease? 3. A child has passed a foreign body—say a pea or a bead—into his nose; what might be the effects if it is allowed to remain? What means might have to be taken for its removal? 4. What is lateral curvature of the spine? What angular? Give the symptoms of each and the treatment you would respectively adopt. 5. A man has stabbed himself with a penknife in the thigh, in the region of the femoral artery; how would you determine if the femoral is wounded? Supposing this to be the case, what treatment would you employ?

Surgical Pathology.—1. Describe the pathological appearance that may be discovered after death in fracture of the base of the skull through the middle fossa. 2. What is meant by an intussusception? What by a volvulus? Describe the former, and the pathological changes that may occur if the case is unrelieved.

Surgical Anatomy.—1. Describe the femoral ring and its boundaries. Give the coverings of a femoral hernia. 2. Give the line of incision for left inguinal colotomy. Mention in their order the parts cut through, and state what anatomical appearances would enable you to distinguish the sigmoid flexure from the small intestine.

Midwifery.—1. Describe in detail the management of breech presentations. 2. State fully the treatment of *post partum* hemorrhage. 3. Give an account of puerperal eclampsia, its etiology, clinical features, and treatment. 4. Under what conditions may retroversion of the gravid uterus give rise to symptoms? What are they, and how would you treat a typical case?

Gynecology.—1. What tumors can be felt in the upper part of the vagina? Give their differential diagnosis and treatment. 2. Give the etiology, symptoms, physical signs, and treatment of pelvic peritonitis.

Forensic Medicine, Toxicology, and Hygiene.—1. Describe the symptoms, treatment and *post mortem* appearances of a case of carbolic acid poisoning. 2. Describe in detail the symptoms and progress of a well-marked case of general paralysis of the insane. 3. Describe the tests, chemical and otherwise, for blood. 4. How would you proceed to make a sanitary examination of a house where you had reason to believe sewer emanations to be the cause of an epidemic of sore throat?

FINAL EXAMINATION IN MEDICINE, SURGERY AND OBSTETRICS. DECEMBER, 1890.

Medicine.—1. State the signs of aortic regurgitation. What are the symptoms of this condition, and how would you relieve them? 2. What renal complications may arise in the course of the following fevers: Typhoid, scarlatina, diphtheria, malarial fever? How do you explain their occurrence? 3. Describe the appearances produced on the scalp and on the skin by ring-worm. How would you test the presence of the microspore in suspected cases, and how would you treat the malady? 4. Compare the signs and symptoms of renal calculus, and tubercular disease of the kidney. 5. What are the signs of perforation of the vermiform appendix? How does this accident occur, and how would you treat it? 6. In what cases of cerebral disease may the diagnosis be aided by observation of the state of the pupils, and the movement of the eyeballs?

Therapeutics.—1. How do saline and vegetable purgatives act respectively? 2. Discuss the value of electricity in the treatment of nervous diseases.

Pathology.—1. What forms of ulcer are found in the stomach? 2. Describe the morbid conditions of the lungs observed in typhoid fever. 3. What is the nature of the contents of ovarian cysts?

Surgery.—1. Describe a case of acute periostitis affecting the tibia. Give the treatment that you would adopt, and mention any complications or sequelæ that are likely to occur. 2. What are the different degrees of burns? Mention the complications and sequelæ of each, and state on what points you would rely in forming a prognosis. 3. How would you treat a compound comminuted fracture of the leg? 4. What are the common signs of inherited syphilis in an infant aged three months, and a child aged twelve years, respectively? 5. Describe a case of acute glaucoma; give the treatment you would adopt, and state the probable result.

Surgical Pathology.—1. Describe the different varieties of hydrocele. 2. Describe the changes that occur in the urinary organs as the result of a stricture of the urethra.

Surgical Anatomy.—Describe the mucous membrane and the glands of the tongue. 2. Describe the hip-joint. State what structures in connection with the hip-joints are called into play in maintaining the erect posture.

Midwifery.—1. Describe the mechanism of delivery when the occiput is behind and to the left. 2. Give in detail the treatment of the different varieties of placenta prævia. 3. How would you proceed to examine a case in which you suspected contraction of the pelvis? What is "flattened pelvis?" 4. Describe the symptoms, signs, diagnosis, and treatment of vesicular mole.

Gynecology.—1. What are the varieties of uterine polypi? To what symptoms may they give rise? How can they be diagnosed and treated? 2. Give an account of prolapse of the uterus, its etiology, varieties, symptoms and treatment.

Forensic Medicine and Hygiene.—1. Describe the effects produced by the following substances, respectively, when applied to the skin: sulphuric, nitric, and carbolic acids, and caustic potash. 2. What symptoms follow poisonous doses of oxalic acid and cyanide of potassium, respectively, and how would you test the presence of these poisons *post-mortem*? 3. Describe the structure of the corpus luteum, and state its importance in cases of death from criminal abortion. 4. State the chief points of importance in the *post-mortem* examination of the body of an infant the subject of coroner's inquest.

PATENTS, ETC., on medical subjects, issued February 3, 1891:

Acid phosphate.....	A. Memminger.....	Charleston, S. C.
Vaginal atomizer.....	W. E. Weldon.....	San Francisco, Cal.
Dental-engine.....	J. S. Campbell.....	London, England.
Dental plugger.....	E. J. George.....	Joliet, Ill.
Dental thermal instrument.....	G. Evans.....	New York, N. Y.
Pink dye.....	F. Bender.....	Muhlheim, Germany.
Liniment.....	J. Wilfong.....	Lancaster, Pa.
Electrical medical apparatus.....	J. C. Chambers.....	Detroit, Mich.
Pill-machine.....	J. R. Clark.....	Philadelphia, Pa.
Syringe.....	H. G. Leisenring.....	Wayne, Neb.
Uterine supporter.....	P. Yost.....	Pittston, Pa.
Truss.....	P. Yost.....	Pittston, Pa.

TRADE MARKS.

Medical preparation of sandalwood and copaiba (The word "Savaresse").....	Evans, Lescher & Webb.....	London, England.
Remedy for diseases of the liver. (The words "Golden Grains").....	J. E. Hetherington.....	New York, N. Y.
Remedy for dyspepsia. (The letters "K. D. C.").....	G. B. Layton.....	New Glasgow, Canada
Castor-oil. (The representation of three frogs standing in a pond and holding up a bottle bearing the words "Cheatham's Tasteless Castor Oil").....	A. B. Richards Medicine Co.....	Sherman, Tex.
Ointments. (The word "Dermacura").....	B. D. Blackstone.....	Martinsville, Ind.
Remedy for hay fever and catarrhal diseases. (A star bearing a shield and the word "Specific").....	N. Tucker.....	Mount Gilead, O.
Cough-drops. (The word "Electric").....	A. M. Greule.....	Newport, Ky.
Pomade for the complexion. (The words "Convent Formula").....	Mary N. Roberts.....	Chicago, Ill.
Medicine for external application. (The word "Sun," the pictorial representation of an eye, and the word "See," in connection with a picture of the sea with the sun rising out of it").....	Sun I See Oil Co.....	Racine, Wis.
Remedy for rheumatism. (The letter "V" bearing the words "Sure Cure" upon a different colored serrated disk).....	H. Vosburgh.....	Allegan, Mich.

LABELS.

"Winter's Life Elixir Tonic and Antiperiodic".....	J. B. Daniel.....	Atlanta, Ga.
"Edward's Cherry and Tolu Compound".....	F. C. Joslyn & Co.....	Syracuse, N. Y.
"White Pine Pectoral".....	H. P. Marshall.....	Mohawk, Tenn.
"Stern's Oil," "Stern's Cream" and "Stern's Tonic" (three labels).....	M. H. Stern.....	Milwaukee, Wis.
"Diffusible Tonic".....	Diffusible Tonic Co.	Sturgis, Mich.
"Compound Rheumatic Oil".....	H. M. Jewett.....	Belfast, Me.

CHARLES J. GOOCH, Patent Attorney.

LOCK BOX 76, WASHINGTON, D. C.

WEEKLY Report of Interments in Philadelphia,
from January 31 to February 7, 1891:

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Abscess of Lung.....	2			Hemorrhage from bowels...	1		
" Neck.....	1		1	" brain.....	1		
" Pelvis.....	2			" lungs.....	1		
Asthma.....	1			" umbilical.....	1		1
Alcoholism.....	4			Inflammation brain.....	1	17	
Apoplexy.....	6			" bronchi.....	4	6	
Aneurism of the aorta.....	1			" kidneys.....	4	1	
Bright's disease.....	10			" larynx.....	1		
Burns and scalds.....	3		1	" liver.....	1		
Cancer.....	7			" lungs.....	26	22	
Casualties.....	3			" pericard'm.....	1		
Congestion of the brain.....	3		8	" peritoneum.....	1		
" lungs.....	3		3	" pharynx.....	1		
Child birth.....	1			s. & bowels.....	3	6	
Cirrhosis of the liver.....	4			Inanition.....		4	
Consumption of the lungs.....	38		2	Influenza.....		1	
Convulsions.....	1	29		Jaundice.....	1		
" puerperal.....	1	1		Locomotor ataxia.....	2		
Croup.....	1	7		".....	1		
Cyanosis.....	1	7		Marasmus.....		11	
Debility.....	8	3		Measles.....		1	
Diarrhoea.....	1			" Old age.....	17		
Diphtheria.....	11			Obstruction of the bowels.....	1		
Disease of the spine.....	1			Paralysis.....	5		
" heart.....	22	4		Pyemia.....		1	
Drowned.....	1	1		Rheumatism.....	2		
Dysentery.....	2			Sclerosis of brain.....		1	
Dropsy.....	1	3		Softening of the brain.....	2		
Effusion of the brain.....	1			Suffocation.....		2	
Eczema.....	1			Suicide, paris green.....		1	
Erysipelas.....	1			Teething.....		1	
Empysema.....	1			Tumor.....	5		
Fatty degen. of the heart.....	2			Ulceration of the stomach.....	1		
" remittent.....	1			Uræmia.....	3		
" scarlet.....	4			Wounds, gun-shot.....	1		
Fever, typhoid.....	6	5					
Hernia.....	1			Total.....	227	175	

MUTUAL AID ASSOCIATION.—The recent meeting of the Philadelphia County Medical Society, at which the claims of and objects of the Mutual Aid Association were especially presented, was an occasion of unusual interest. Addresses were made by Drs. Gouverneur M. Smith and Henry Tuck, of New York, of the New York Society for the Relief of the Widows and Orphans of Medical Men, and by Professors Keen, Pepper, Willard and others of this city. A brief memoir of Dr. Henry H. Smith, the founder of the Association, was read by Dr. Benjamin Lee. Sixteen of those present followed the example of Professor Keen in enrolling themselves as members, or increasing the grade of their membership. The total addition to the Benevolent Fund thus made will amount to about \$1,300. On the adjournment of the business meeting a reception was extended to the guests from a distance, at the University Club.

The following extracts from Dr. Smith's address will convey an idea of the scope of the work of the New York Society.

"Our Society has, for a number of years, proved a blessing to its beneficiaries, and has been remarkably successful in accumulating a financial capital of \$172,180.58, which insures a continuance of a laudable work in the future." After emphasizing the somewhat remarkable fact that the largest contributors to and most earnest supporters of their Society had been bachelors, and mentioning the names of the eminent physicians who in the year 1842 met to inaugurate the movement, he continued: "Do not for a moment suppose that since then it has been fostered by lesser dignitaries. Many of those who have given to it the most time and care have been men whose families would, probably, in the ordinary course of events, never derive any pecuniary benefit from it. Since 1877, the smallest number of widows aided in any one year has been ten, and the largest number fourteen; the smallest number of orphans four, and the largest number eight. During the year the Society meets once. The Board of Managers and the Stand-

ing Committee hold four stated meetings, and such special meetings as may be necessary. One matter should be especially emphasized, viz.: A charitable element should prevail in the direction of such fraternities; while business principles should be strictly enforced in the investment of funds, a charitable disposition should be made of the revenue derived from such funds. The affluent members of the profession should deem it a duty to their holy calling to foster any such organization. It is a work in which men of all nationalities and creeds can mutually coöperate, remembering the words of the great poet:

'In Faith and Hope the world will disagree,
But all mankind's concern is Charity.'

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from January 23, to February 9, 1891.

Leave of absence for one month, with permission to apply to the Adjutant-General of the Army for an extension of one month, is granted Captain Alonzo R. Chapin, Assistant-Surgeon, Fort Yates, N. D. Par. 3, S. O. 17, Dept. Dakota, St. Paul, Minn., January 31, 1891.

By direction of the Secretary of War, leave of absence for six months, with permission to go beyond sea, is granted Major Julius H. Patozki, Surgeon. Par. 5, S. O. 24, A. G. O., Washington, D.C., January 29, 1891.

By direction of the Secretary of War, Captain William Stephenson, Assistant-Surgeon, will proceed without delay from Columbus Barracks, Ohio, to Fort Wayne, Michigan, and report in person to the commanding officer of that post for temporary duty, and upon the completion thereof will return to his proper station. Par. 13, S. O. 23, A. G. O., Washington, D.C., January 28, 1891.

By direction of the Secretary of War, Captain Robert J. Gibson, Assistant-Surgeon, is relieved from further temporary duty in the field, to take effect so soon as his services can be spared by the officer commanding the troops with which he is serving, and will then return to New Haven, Conn., and resume his leave of absence. Par. 6, S. O. 22, A. G. O., Washington, D.C., January 27, 1891.

By direction of the Secretary of War, Captain Charles M. Gandy, Assistant-Surgeon, is relieved from temporary duty in the field, to take effect when his services can be spared by the commanding officer of the troops with which he is serving, and will then return to Ocean View, Cape May county, New Jersey, and resume his leave of absence. Par. 1, S. O. 21, A. G. O., Washington, D.C., January 26, 1891.

By direction of the Secretary of War, Captain William P. Owen, Jr., Assistant-Surgeon, is relieved from temporary duty with troops in the field, to take effect as soon as his services can be spared, and will then return to Muskogee, Indian Territory, and resume his leave of absence. Par. 3, S. O. 20, A. G. O., Washington, D.C., January 24, 1891.

By direction of the Secretary of War, Captain Walter Reed, Assistant-Surgeon, is relieved from temporary duty at Fort Keogh, Montana, to take effect as soon as his services can be spared by the commanding officer of that post, and will then return to Baltimore, Maryland, and resume his duties in that city, as Attending Surgeon and Examiner of Recruits. S. O. 20, par. 3, A. G. O. Washington, D.C., January 24, 1891.

The Times and Register.

Vol. XXII, No. 8. NEW YORK AND PHILADELPHIA, FEBRUARY 21, 1891. Whole No. 650.

PAGE	PAGE	PAGE
ORIGINAL ARTICLES.	BOOK NOTICES.	
REPORT OF SIXTY CASES OF UTERINE MYOMATA. By J. H. Kellogg, M.D., Battle Creek, Mich. 147	Illinois State Board of Health. <i>Rauch</i> . . . 159	Amputation at Hip joint by Abdominal Section, and Compression of Descending Aorta with Fingers to Prevent Hemorrhage. <i>Hardy</i> 161
CASE OF REMARKABLE INJURY, WITH RECOVERY. By E. A. Cobligh, M.D. . . . 150	THE MEDICAL DIGEST.	Operative Treatment of Sympathetic Ophthalmia. <i>Story</i> 161
SOCIETY NOTES.	Treatment of Diseases of the Uterine Appendages. <i>Duncan</i> 156	Treatment of Dysmenorrhœa. <i>Marion-Sims</i> 161
GYNECOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE 153	Rupture of the Membrana Tympani. <i>Phil-lips</i> 160	Folliculitis Caused by Mineral Oil. <i>Leloir</i> . 162
The Indications for Cæsarean Section. <i>Neale</i> 153	Diphtheria. <i>Seibert</i> 160	New Uses for Aristol. <i>Med. Summary</i> . . 162
THE POLYCLINIC.	For Enuresis. <i>The Country Doctor</i> . . . 160	Lupus. <i>Hutchinson</i> 162
MEDICO-CHIRURGICAL HOSPITAL:	For Erysipelas. <i>Prov. Med. Jour.</i> . . . 160	Treatment of Chorea. <i>Brown</i> 162
Sinus Treated with Peroxide of Hydrogen. <i>Waugh</i> 156	Calnactive for Hysteria. <i>Grassett</i> . . . 160	Action of Poisons on Nerve Cells. <i>Langley and Dickinson</i> 162
Erysipelas and Insomnia. <i>Waugh</i> . . . 156	For Diphtheria. <i>Sevestre</i> 160	Pirogoff on Treatment of Erysipelas. <i>Smigrodski</i> 163
Digitalis as a Hypnotic. <i>Waugh</i> 156	The Cure of Hydrocele. <i>Wyeth</i> 160	Nature and Treatment of Chorea. <i>Brown</i> . 163
EDITORIALS.	Nail in the Skull. <i>Dewey and Riese</i> . . . 160	The Use of the Chisel Instead of the Trephine in the Surgery of the Head. <i>Keelley</i> 163
SUDDEN DEATH 157	Cure for Drunkenness. <i>Jour. of Inebriety</i> . 160	Ingrowing Toe Nail. <i>Wyeth</i> 164
ANNOTATIONS.	Trephining for Headache. <i>Prewitt</i> . . . 160	MEDICAL NEWS AND MISCELLANY, 164
Should the Editorial Go? 158	Santa Barbara's Climate. <i>Occidental Med. Times</i> 160	ARMY, NAVY, AND MARINE HOSPITAL SERVICE 166
Staunton, Va. 158	For Pruritis of Eczema. <i>Vanderbeck</i> . . . 161	NOTES AND ITEMS iv, xli
LETTERS TO THE EDITOR.	Inoculated by Mosquitoes. <i>Finlay and Delgado</i> 161	
Does Ozone Arrest or Modify Certain Diseases? <i>Sharp</i> 158	Drainage and Antisepsis. <i>Marcy</i> 161	
	Treatment of Venereal Diseases. <i>Wainwright</i> 161	

Original Articles.

REPORT OF SIXTY CASES OF UTERINE MYOMATA, TREATED BY ELECTROLYSIS, WITH DESCRIPTION OF NEW FORMS OF ELECTRODES AND A COULOMBMETER.

By J. H. KELLOGG, M.D.,
BATTLE CREEK, MICH.
(Continued from page 110.)

CASE X.—Mrs. P., of Iowa; aged twenty-eight years; married ten years; two children. Has had excessive flow for several years. Examination showed uterus enlarged. First saw the patient in November of 1885. The patient was benefited by the usual palliative measures, and returned home; but some months later came back, worse than before. The tumor had grown till it had filled the pelvis. Was able to make out distinctly two or three large, subperitoneal masses, and also found evidence of myomatous growth of an interstitial character. Employed 100 to 200 milliamperes, continuing the current five to seven minutes. The patient remained under treatment for six months, during which time twenty-eight treatments were administered. The excessive flow was checked, but the tumor continued to increase in size. The patient became discouraged, and returned home. Some months later she returned, when the tumor had attained the size of a gravid uterus at full term. The subperitoneal masses were so large and well defined that the irregular contour was easily perceptible to the eye. The tumor reached several inches above the umbilicus. The patient was

greatly emaciated and reduced in strength, and, being unwilling to continue treatment longer by electrolysis, and feeling myself little hope that relief would be obtained by this means, I recommended removal of the appendages, and performed the operation. Both ovaries were cirrhotic, and one contained a large hæmatocele. The patient made an excellent recovery, and returned to her home after a few weeks with the tumor considerably diminished in size. The menopause was promptly induced by the operation, and the patient is now enjoying excellent health, the tumor less than half its former size.

CASE XI.—Mrs. C., of Connecticut; aged thirty-six years; married; no children. Had for two years suffered constant pelvic pain. Flow not profuse. Examination showed two small, subperitoneal growths on the anterior aspect of the uterus. Electrolysis was begun in January, 1888. Seventeen applications were made within three and one-half months. Pelvic pain was increased by treatment, and the tumors increased in size. At last accounts the patient was still suffering much pelvic pain, and the tumors were increasing in size.

CASE XII.—Mrs. L., of Michigan; aged forty-seven years; married; no children. Profuse and prolonged menstrual flow. Examination showed a large, myomatous growth. Began treatment by electrolysis, but the patient remained under observation only a few weeks. She went home somewhat improved, but I have no knowledge of her subsequent condition.

CASE XIII.—Mrs. G., of Michigan; aged forty-five years; married; no children. Frequent and profuse flow for fifteen years. Examination showed a small, interstitial myoma. Patient was under treatment two and one-half months, receiving twelve

applications, of 75 to 125 milliamperes. Menorrhagia stopped; no change in the size of the tumor.

CASE XIV.—Mrs. H., of Ontario; aged thirty-five years; married; no children. Patient—a Scotch woman—had suffered severe pelvic pain for three years. Had been for some time under the care of Prof. Simpson, of Edinburg. For the last year, suffered from profuse menstrual flow, with increasing pelvic pain. Found fundus irregularly enlarged, about three times its normal size. Interstitial myoma in posterior wall. Began treatment by electrolysis in March, 1888; continued treatment for three months, making twenty applications. At the end of this time the menstrual flow was normal; the uterus reduced to nearly normal size, it being difficult to make out the original site of the tumor. She became pregnant a few months later, and in due time gave birth to a healthy child. When heard from a few months ago, she was enjoying excellent health, with no evidence of a return of the disease.

CASE XV.—Mrs. C., of Iowa; aged forty-six years; married; several children. Patient had flowed excessively for a number of years; much pelvic pain. Uterus about three times its normal size; interstitial growth in the right wall. Patient was under treatment three months, receiving fifteen applications of 100 to 150 milliamperes. Went home relieved of pelvic pain; improved in general health; flow normal; and uterus restored so nearly to normal condition that a physician who examined her subsequently expressed a doubt about her having had any morbid growth of the uterus. The patient has continued in good health since.

CASE XVI.—Miss N., of Michigan; aged thirty-seven years; single. Patient had suffered for a number of years from retroversion of the uterus. On examination, found uterus enlarged to twice its normal size, and judged the conditions to be due to hypertrophy or chronic congestion, as the increase in size was apparently symmetrical. Performed an operation for shortening the round ligaments. The retroversion was cured, but a few months later it became apparent that the patient was suffering from a myoma, which was rapidly changing from an interstitial to the subperitoneal variety. Several months' treatment by electrolysis apparently had no effect—the tumor increasing in size, and its subperitoneal character becoming more decided. The patient lived at a distance, and, with the little prospect of success, was unwilling to continue longer treatment by electrolysis, and at her request I removed the appendages. The menstrual period ceased, the patient made a rapid recovery, and for some months has been in excellent health, able to engage in hard manual labor daily. In this case both ovaries were cirrhotic and contained large cysts filled with blood.

CASE XVII.—Mrs. S., of Washington, D. C.; aged thirty-seven years; married; one child. Invalid for a number of years. Suffered great menstrual flow and great pelvic pain. Examination showed an interstitial myoma, which increased the volume of the uterus to more than three times its normal size. The uterus was immovable. Tenderness and throbbing everywhere in the pelvis. Patient had been under the care of excellent gynecologists, and in hospital for a year, but had grown steadily worse. Was under treatment for eight months; made nineteen applications of electrolysis, using from 75 to 125 milliamperes. The profuse menstrual flow stopped, the pelvic pain disappeared, and the uterus returned to its natural size, with only a slight irregularity in outline to mark the original site of the tumor.

CASE XVIII.—Mrs. A., of Illinois; aged forty-eight years; married; two pregnancies. Menstrual flow profuse, and accompanied by severe pelvic pain. Found an interstitial and subperitoneal myoma reaching above the umbilicus. Patient was under treatment for three and one-half months, during which time I made twenty-three applications of electrolysis, employing a current of 100 to 200 milliamperes, with 80 to 100 coulombs. The hemorrhages were stopped, the tumor diminished in size, and the patient restored to good health. She has remained well since.

CASE XIX.—Mrs. C., of Missouri; aged forty-six years; married; never pregnant. Menstrual flow profuse for five years. Found a large fibroid reaching above the umbilicus, apparently subperitoneal in character. Patient greatly reduced; suffering extremely from pelvic pain. Made six applications of electrolysis, employing a current of 150 to 200 milliamperes, with 80 to 120 coulombs. The hemorrhages were stopped, the pelvic pain relieved, and the patient's general health greatly improved, although the tumor did not diminish in size. The patient then returned home, and since reports herself in good health, although the tumor does not appreciably diminish.

CASE XX.—Mrs. P., of Washington, D. C.; aged about forty-six years; married. Suffered profuse menstrual flow for a number of years. Had been under the care of excellent gynecologists, but without success, the only result being an aggravation of the symptoms—increase of hemorrhage, pain etc. Patient very anæmic. Examination revealed a large multinodular fibroma, a portion of which was interstitial, but the larger part subperitoneal. By the exercise of great care in the treatment, I was able to employ electrolysis in currents of sufficient strength. Made nineteen applications of 60 to 100 milliamperes. For some time the patient was evidently benefited. The hemorrhages were controlled, the pelvic pain lessened, and the patient improved in general health. The tumor also diminished perceptibly in size. Subsequently, however, the old symptoms returned. Careful examination showed that while there had been a diminution in the interstitial portions of the tumor, the subperitoneal portions had continued to grow. The patient became discouraged, and discontinued treatment. Have heard no report of her condition since.

CASE XXI.—Mrs. P., of Michigan; aged thirty-five years; married; twice pregnant. Patient had had constant flow for two months. Found uterus enlarged by interstitial fibroid, reaching nearly to the umbilicus. Employed electrolysis nearly three months; made twelve applications, the current ranging from 100 to 200 milliamperes. At the end of this time, the patient returned home. Came back for an examination three months later, when no trace of the tumor was to be found, except a small nodule on the right side of the uterus. The patient was in perfect health, the hemorrhages having ceased entirely, and the patient being wholly free from the distressing pelvic pain which she had previously suffered.

CASE XXII.—Mrs. I., of New York; aged forty-seven years; married; two pregnancies. Had flowed profusely for five years. For the last two years the flow had been continuous and very profuse. Patient reduced to a helpless condition; case regarded as hopeless by local physicians. On examination, found the uterus enlarged to four times its normal size, the enlargement being chiefly in the right wall. The patient was under treatment for several months; thirty applications of electrolysis, the usual dose be-

ing 125 milliamperes and 30 to 60 coulombs. Result: scarcely a trace of the tumor remains, the pelvic pain is relieved, and the menopause fully established.

CASE XXIII.—Mrs. B., of Ohio; aged thirty-two years; married; three children. Had suffered profuse uterine hemorrhages and terrible pelvic pains ever since the age of twenty, when she first became aware of the presence of a uterine myoma. Examination showed a multinodular fibroid of the uterus, subperitoneal in character. The patient was under observation for several years, during which time the tumor continued to grow in spite of all the therapeutic measures which I, as well as others, could bring to bear upon it. I made a very thorough trial of electrolysis, but was obliged to discontinue the treatment, as the pain and febrile reaction occasioned by the application of even a current not exceeding 50 or 60 milliamperes, was so great as to endanger the life of the patient. As a last resort, I recommended the removal of the appendages, and completed the operation successfully, although the ovaries and tubes were buried beneath the tumor, rendering their removal extremely difficult. One ovary contained a large hæmatocele. The other was very cirrhotic. At the time of the operation, the tumor reached two inches above the umbilicus. Examination confirmed my diagnosis of subperitoneal growth. After the operation, the tumor rapidly diminished in size, the menopause was quickly established, and the patient is now in excellent health, the tumor having decreased to one-half its former size.

CASE XXIV.—Mrs. B., of Michigan; aged forty-six years; married; never pregnant. Patient had been suffering from menorrhagia for several months. Was much emaciated, and confined to bed. On examination, found a thickening on the right posterior aspect of the uterus, which I believed to be a myoma. Long rest in bed, with palliative treatment, stopped the hemorrhages, and the patient improved rapidly in health, increasing her weight from one hundred pounds to one hundred and forty-six pounds in the course of a few months. She returned to her home apparently well. Four years later, the patient returned, having again suffered from profuse menstrual flow for several months and was considerably emaciated. On examination, found a pedunculated fibroma of considerable size protruding from the cervix uteri. Removed the tumor by means of the galvano-cautery *ecraseu*. Found also an interstitial thickening of the anterior wall. Made eight or ten applications of electrolysis. The abnormal flow ceased entirely, and the uterus returned to its natural size. At the present time, no evidence of the previous existence of a tumor can be discovered.

CASE XXV.—Mrs. W., of Ohio; aged forty-eight years; married; never pregnant. Menstrual flow profuse and irregular; severe pelvic pain. Examination showed interstitial fibroid reaching nearly to the umbilicus. Patient had been an invalid for nearly twenty-one years; almost completely bedridden for several years. Made five applications of electrolysis, employing a current of 100 to 150 milliamperes. Patient then returned home with the tumor greatly reduced in size, the menstrual flow normal, and greatly improved in general health.

CASE XXVI.—Mrs. O., of Montana; aged forty-two years; married; two pregnancies. Menstrual flow profuse and prolonged, accompanied by much pelvic pain. On examination, found thickening of one side of the uterus, probably due to interstitial fibroid. The uterus was about three times its natural size.

Curetted the cavity of the uterus, and made five applications of electrolysis, employing from 75 to 150 milliamperes. Patient returned to her home relieved of the profuse flow, and the uterus restored to nearly normal size.

CASE XXVII.—Miss S., of Chicago; aged forty years; single. Menstrual flow profuse and prolonged; uterus about three times its normal size. Interstitial fibroid. Patient reduced to such a degree as to be unable to read or write, although previously engaged for many years in literary pursuits. Made ten or twelve applications of electrolysis, using from 100 to 150 milliamperes. Patient returned home much improved. A few months later, the patient returned for examination, when I found the tumor had diminished in size considerably, the hemorrhages had ceased, and the patient's general condition much improved, so that she was able to engage in teaching. Two or three further applications were made of electrolysis, since which time she has remained in good health.

CASE XXVIII.—Mrs. C., of Michigan; aged forty-three years; widow; several pregnancies. Profuse menstrual flow and much pelvic pain for several years. On examination, found a large interstitial fibroid, the mass reaching nearly to the umbilicus. Made eighteen applications of electrolysis within seven and one-half months, using 150 to 200 milliamperes. The excessive flow was checked, the tumor diminished somewhat in size, and the patient's general health improved. Improvement has continued since.

CASE XXIX.—Miss P., of New York; aged twenty-four years; single. Had suffered profuse and painful menstruation for several years; constant backache; general health wretched. On examination, found interstitial growth in the anterior wall of the uterus. Made seven applications of electrolysis in seven months. At the end of this time the hemorrhages and menstrual pain were relieved, and the patient's general health restored. Returned home well. The tumor was so far reduced that the uterus was only slightly above normal size.

CASE XXX.—Miss P., of Ohio; aged forty-nine years; single. Menstrual flow too frequent and profuse, and accompanied by severe pelvic pains. Patient was first seen in October, 1889. On examination, found a subperitoneal multinodular myoma of the uterus, which had increased its volume to three times its normal size. Made eleven applications of electrolysis within three months. Patient did not bear the current well, the average application being 50 to 75 milliamperes, with 30 to 40 coulombs. The patient's condition was greatly improved, however, the flow being diminished, the pelvic pain lessened, and the growth of the tumor checked.

CASE XXXI.—Mrs. T., of Louisiana; aged thirty-five years; married; one pregnancy. Periods too frequent and profuse, extremely painful, uterus enlarged and retroverted, thickened upon one side, apparently by an interstitial fibroid of moderate size. Both ovaries were enlarged, prolapsed, and tender. Operation for shortening the ligaments was performed with the hope of affording relief from the terrible nausea and vomiting which continued incessantly for about ten days at each menstrual period, and had reduced the patient to a very low state. The operation was followed by applications of electrolysis for several weeks, which checked the flow and the growth of the tumor, and for some months the patient was in fair health; but the vomiting returned, and by advice of her physician, Dr. Wair, she returned for removal of the appendages. Both ovaries were cirrhotic and cystic. One contained a hæmatocele of

The patient made a good recovery from the operation, and has since enjoyed excellent health.

CASE XXXII.—Mrs. B., of Nebraska; aged thirty-seven years; married; one pregnancy. Menstrual flow profuse and very painful. Found interstitial and subperitoneal uterine fibroma, increasing the uterus to four or five times its normal size. Made nine applications of electrolysis in two months, employing a current of from 90 to 120 milliamperes, and 40 to 60 coulombs. The flow was lessened, but the tumor did not diminish in size. The patient returned home somewhat discouraged, but afterwards reported the hemorrhage stopped, and her health very considerably improved.

CASE XXXIII.—Mrs. S., of Wisconsin; aged forty-six years; married. For a number of years has suffered excessive flow at menstrual periods, and great pelvic pain. Had very wretched health in consequence. Examination revealed a large interstitial and subperitoneal myoma reaching nearly to the umbilicus. Patient remained under treatment for five months, during which time twenty-one applications were made with a current of 100 to 200 milliamperes, 50 to 100 coulombs. Patient returned home cured of the hemorrhages and the pelvic pain, although the tumor had not appreciably diminished in size.

CASE XXXIV.—Mrs. C., of New York; aged twenty-eight years; married; one pregnancy. Menstrual flow prolonged and profuse, much pelvic pain. Found uterus twice normal size, retroverted, and evidence of an interstitial fibroid in the right wall. Cured the cavity of the uterus, cured the retroversion by shortening the ligaments, and made a number of applications of electrolysis, using a current of from 50 to 60 milliamperes, and 20 to 30 coulombs. The hemorrhage was entirely checked, and the uterus restored to normal size. The patient has continued in good health since.

CASE XXXV.—Mrs. B., of Michigan; aged thirty-seven years; married; several pregnancies. Had been a complete invalid for several years. Profuse and frequent menstrual flow, constant pelvic pain, greatly aggravated at the menstrual period. Uterus retroverted, and about three times normal size. Distinctly made out an interstitial myomatous growth of the posterior wall. Both ovaries were prolapsed. Performed an operation for shortening the round ligaments, which lifted the ovaries and the uterus out of the hollow of the sacrum. Afterward made several applications of electrolysis. The menorrhagia ceased, the pelvic pain was relieved, and the patient's condition was greatly improved, although not entirely cured. The tumor diminished in size, but did not disappear entirely.

CASE XXXVI.—Mrs. E., of Iowa; aged forty-nine years; married; three pregnancies. Menstrual flow irregular, usually too frequent, and has been very profuse for five years. Patient very anæmic, and greatly reduced in flesh. Made only one application of electrolysis, as the patient remained under observation only a few days. Result unknown.

CASE XXXVII.—Miss W., of Ohio; aged twenty-eight years. Suffered from frequent and profuse menstruation, with great pelvic pain, for several years. Symptoms greatly aggravated within the last few months. A subperitoneal and interstitial fibroid which increased the uterus to about three times its normal size. Patient was under treatment six months, within which time I made twenty applications of electrolysis, using a current of 75 to 100 milliamperes, with 30 to 50 coulombs. At the end of this time, the

tumor was somewhat diminished in size, the menorrhagia and pelvic pain were cured, and the patient was greatly improved in health. The improvement has since continued.

CASE XXXVIII.—Mrs. M., of New Hampshire; sent by Dr. Davis, of South Paris, Me.; aged forty-four years; married; never pregnant. Menstrual flow profuse and prolonged. First saw the patient in January, 1890. Found interstitial and subperitoneal multi-nodular myoma reaching nearly to the umbilicus. Made thirty applications of electrolysis, using from 125 to 200 milliamperes, 75 to 100 coulombs. Tumor diminished somewhat in size, menstrual flow checked, and the patient greatly improved in health, notwithstanding the fact that she was suffering also from organic disease of the heart and kidneys, with general dropsy. The latter condition was also relieved.

CASE XXXIX.—Mrs. B., of Wisconsin; aged forty-six years; married; three pregnancies. For three years menstrual flow excessive, continuing half the month. Examination showed a small interstitial fibroid. Cured the cavity of the uterus and made three applications of electrolysis, as the result of which the hemorrhage was controlled and the tumor diminished in size. When patient was last examined it was scarcely noticeable.

CASE XL.—Mrs. M.; aged about forty-two years; married. Profuse menstruation for several years, and much pelvic pain. Found an interstitial fibroid of considerable size. The patient remained under treatment one month, during which time she received six applications of from 55 to 95 milliamperes, 40 to 60 coulombs. The patient then returned home, and has not been since heard from, so results cannot be stated.

CASE XLI.—Mrs. M., of Michigan; aged thirty-two years; married; two pregnancies. Menstrual flow too frequent and prolonged; much pelvic pain. On examination, found a small interstitial fibroid. Nine applications of a current of 40 to 50 milliamperes sufficed to effect a cure. The tumor disappeared, the flow became normal, and patient returned home in good health.

[To be continued.]

CASE OF REMARKABLE INJURY, WITH RECOVERY.¹

By E. A. COBLEIGH, M.D.,

Dean, and Professor of Theory and Practice of Medicine, in the Chattanooga Medical College, Chattanooga, Tennessee.

I HAVE the pleasure of presenting to you to-day, though in a hastily written form, on account of the press of other duties, the report of a case of injury, which to me, at least, has seemed unique, both in the light of its final result and as to many of its manifestations while under my observation. With the report I hope to present the patient himself a little later.

Owing to the peculiarities of the case, you will pardon me if I go into details somewhat at length, though I will be as brief as *completeness* of narration permits.

About three o'clock on the afternoon of August 6, last, I received a telephone summons to go hurriedly to a manufacturing establishment in this city, where I was informed that a workman had just received a terrible injury, but the nature of which my excited informant at the phone could not state. Dr. Heskett was sitting in my office at the time, and I in-

¹A paper read before the Tri-State Medical Society of Alabama, Georgia and Tennessee, October 10, 1890.

vited him to accompany me, to which he readily assented. Taking my "emergency" satchel along, with the expectation that some operation might be necessary, we repaired with due dispatch to the place. Before reaching our destination we could see several persons bearing a wounded man from one department of the works to another, nearer the street, the victim being transported in a chair, and in an almost upright position. Having deposited their burden, by the time of our arrival, on a cot which was at hand, I stripped him to the waist and undertook to place him in a recumbent posture, both for the comfort of the patient and to facilitate my own examination of his hurts. This was at once found to be utterly impossible, owing to the nature and degree of the injury sustained, every effort to materially lower the head and shoulders being attended with symptoms of collapse of an urgent nature. So he was propped in a semi-recumbent position, and the following history was obtained while we made our physical examination of the man:

An old well, used for supplying the boilers with water, had become inadequate for the purposes of the rapidly enlarging factory, and for a considerable period of time work had been going on in the way of deepening said well, till it had reached sixty feet below the surface. During the day a heavy, steel drill had become so dull that another and smaller one had been substituted for it, while the larger one went above for grinding on the power grindstone, near the mouth of the shaft. This had been sufficiently sharpened, a loop of rope fastened around it, and a fellow workman was lowering it to the man below, when the noose loosened at a depth of about ten feet from the surface, slipped off, and let the implement go dashing down on the men at the bottom with no warning worth mentioning, and it had struck the patient lying before me, after falling about forty-five or fifty feet.

At the bottom of the well some of the men were holding the drill (then in use), while Tony Houston, colored, the wounded fellow, was standing upright on a rough little platform, about eighteen inches high which had been built to afford the striker an elevation, from which to wield his sledge to the best advantage. It seems that they were awaiting the arrival of the larger tool from above when the accident happened, and standing erect, but not all of them looking up, as there was much dripping of water from the sides of the well, necessitating heavy gum coats for the workmen.

I will preface here by saying that Tony is a man of magnificent physique and splendid muscular development, having worked at hard and steady manual labor in this same factory for seven or eight years. He stands five feet, eleven inches high; is twenty years old; scarcely ever sick a day in his life, though some years ago given to occasional spurring; and he weighs a hundred and seventy-five pounds.

My examination developed the fact that the wound of entrance was situated one and a half inches to the right of the spinous process of the fifth cervical vertebræ, just at the point where his neck began to broaden toward the shoulders, and the drill had only missed the spinal column by a hair's breadth. Passing downward, very slightly forward and to the right, leaving a rather smooth opening, oval in form from above (perpendicularly), with somewhat inverted edges, it resembled the old-fashioned wounds of entrance of round shot, not very large, indeed not so immense as one would expect from the size of the wounding instrument, yet sufficiently large for the cervical muscles

and fascia to show plainly in the wound, especially if forcibly opened. The shape of the wound made it close like a valve, yet air was entering and being expelled with a pink froth at nearly every respiratory effort, although there was no considerable hemorrhage. At first I thought this air came from the air passages of the lungs, but have later formed the opinion that it was sucked in and returned by the action of the diaphragm during the process of breathing.

From here the drill passed into the chest cavity between the scapula and the clavicle—at its very apex—without damage to either of these bones, impinging on the third and fourth ribs, which were both fractured from behind, right in the line of the wound, (evidently the fragments being parted as by a wedge while the drill was *in situ*), then passing down on the anterior and outer surface of the fifth and sixth ribs without injury to either, and emerging by a great, gaping and ragged wound, with much eversion of its edges, just at the inferior border of the latter rib and over the interspace below, its center being at the time of the examination two inches below, and one and a half inches to the right of the nipple. There was only moderate bleeding from this wound, into the opening of which I readily introduced the tips of three fingers, and no air was escaping here. The skin and subcutaneous tissues seemed to be so absolutely deadened by the magnitude of the injury sustained as to have absolutely lost all their normal elasticity. I passed two fingers up the tract of the wound their full length, entering the pleural cavity with their tips under the broken ends of the lower fractured rib which could be distinctly felt. Everything felt torn and indefinite, the ends of the broken bone easily movable, but I was not able by the touch to satisfy myself with any degree of reasonable force, whether the subjacent lung surface was injured or not, though I thought it was. From top to bottom of the wound in its entire length, it measured in a direct line at that time fourteen and a half inches, and he must have had buried in his anatomy fourteen and a half inches of steel, an inch in diameter.

On withdrawal of the fingers the wound closed by collapse of its sides, and prevented any profuse degree of hemorrhage externally. There was very intense pain, and a marked degree of shock, as shown mainly by the pulse, the mind remaining clear throughout. The integument, however, was quite clammy, and he complained a great deal of chilliness, without any pronounced rigor. There was very extreme rapidity and difficulty of respiration, some gasping, and I was quite strongly of the opinion he would die in a short time, especially as I found the signs of depression increasing fast, the pulse losing all tone, flickering, irregular, intermittent, and the mucous surfaces blanching. I so expressed myself without hesitation to the employers, but added that in a few rare cases men had recovered miraculously from seemingly as desperate injuries.

He was at once given 1-100 grain of strychnine, $\frac{1}{4}$ grain morphine, and 1-100 grain atropine, hypodermically. In fifteen minutes this was repeated, and twenty-five minutes later the strychnine was again resorted to. Very perceptible reaction resulted, as shown by the improved state of pulse, and an hour and a half after I first got to him I had him removed to his home—one square distant—in the same chair previously in use. All motion was exquisite torture to him, especially the slightest moving of the right arm or the neck. He was taken home in a semi-recumbent posture, with two men steadying his head in fixed position as they walked beside the bearers of

the chair. Thus far the only treatment given the wounds by me was by applying pledgets of iodoform gauze over both openings, which readily adhered in place by the blood oozing from same. No alcoholics were given from the start, as I was anticipating the occurrence of hæmoptysis at any moment, and feared the least over-stimulation. There was only a slight (suppressed) cough, and no spitting of blood took place, and there was no emesis, though it was several times strongly threatened.

At his house he was disposed in nearly the same position previously resorted to, but put on a cot. Indeed, he could not be laid down at all, every effort producing the most excruciating pain and alarming dyspnœa. Without further medication, and no other dressings, I left him for an hour to meet another engagement, previously made.

On my return he was resting as well as could be expected. Auscultation showed only shallow respiration in the upper part of the right side, almost no motion at all of the injured side of the thorax, solidity of the whole lung, except the region of the upper lobe, and this locality afforded all kinds of coarse and fine moist râles. I should have stated at first that a previous auscultatory examination had shown the same state of affairs when the injury was received. There was no tendency to the least displacement of the ends of the broken ribs, and every movement of any part of the body, but especially of the head, neck, right arm, and trunk, proved so very painful that I felt secure of no danger from this source, and I determined to leave him with nothing on the body save the gauze, and a blanket to cover the surface. Morphine in sufficient doses to secure for him as reasonable an amount of comfort as possible was ordered, and he was left for the night in the care of two excellent colored attendants, who had been furnished by his employers. Temperature now was normal, and pulse of good volume, but quick, owing to the loss of respiratory surface of the lungs. Cough he could not, because of the extreme suffering it produced, yet there was much inclination to do so, which he resisted with grim determination. Respiration of course continued rapid, as at first.

I will here say that I had intended to present the original drill before you for your personal inspection, and have photographs of the instrument taken for publication, but it has been impossible for me to obtain possession of the drill, and I can only give you the measurements of same, which were accurately taken at the time. Its dimensions were found to be as follows: Six feet long; one inch in diameter, except at the sharpened extremity, where it was flattened out to a long diameter of one and a half inches; it was an octagonal bar of solid and well-tempered steel, weighing seventeen and three-quarters pounds. You can form a very accurate idea of the thing if you will picture it in your minds as being a sharpened "crow-bar," such as you see in every-day use among masons, and where heavy work is being done.

Next morning—the 7th—I found Tony had passed a very restless, wakeful night of suffering, but otherwise was not materially changed in condition from the night before. There had been but trifling hemorrhage from the lower opening, chest still full of air with symptoms as before; no cough or expectoration to speak of, and no blood in what he did spit up. But there persisted a very peculiar respiratory sound, and which I have never heard before, nor can I describe it with any degree of precision so as to give you a reasonable notion of what it sounded like. This was mingled with the other numerous chest râles, and

the best description I can give is to liken it to the puff of the valve of a blacksmith's bellows—short, sharp, coarse, deep in tone, heard with both respiratory movements, but best and most pronounced at the beginning of expiration. It sounded much like air passing into the chest cavity from the larger tubes of the bronchi, yet I never could clearly make out that this was the case. No air was now passing through the openings made by the drill externally, and no signs of any emphysema of the tissues. Immobility of the entire right chest continued, the breathing being largely abdominal. Talking above a whisper was impossible, seemingly from a loss of power in the vocal cords or the muscles required for phonation. This latter continued for three or four days, and disappeared gradually. Right arm was absolutely powerless, also continuing for many days, seeming to depend on the soreness of those muscles needed in its movements at the shoulder and neck, as well as the injury done to some of them directly or by the breaking of the ribs to which they happened to be attached. So pronounced was this condition that he would not allow the arm moved by another for some days, and afterwards he had it moved with great care, and much complaint. Little appetite. Patient still compelled to half sit, in one position solely, reclining on the back. Most of his complaint now was of the pain over the vicinity of the broken ends of the ribs and in the injured cervical region. Arm only troublesome *when moved*. I now adjusted a bandage around whole of the thorax, using a stout towel for this purpose, drawing it pretty tight, and fixing it with safety pins over the gauze, which had been renewed. No straps were used, as immobility of the right chest was perfect enough for all practical purposes—no tendency to any displacement of the broken ribs—and I wished to make free and frequent auscultation over the injured pleural cavity.

At three o'clock P. M. condition about the same, but felt more comfortable with bandage on than before. My impulse was from the very beginning to enlarge the wound of exit or otherwise provide for free drainage from the chest cavity, fully anticipating extensive empyema, but this was deferred mostly because I regarded the prognosis as desperately bad from the first. Pulse was now eighty-two, respiration forty, and temperature one hundred and three-fifths, showing reactionary fever. Appetite had improved. At nine P. M. pulse was eighty-six, respiration thirty-two, patient sleeping. Opiates, a placebo, and cleansing the external wounds were the only remedies employed. Appetite had become craving during the day. Diet was restricted to liquid foods in small quantities, frequently repeated so as not to oppress the lung-action by distension of the stomach, mainly confined to milk. Very thirsty.

On the 8th, at nine A. M. pulse was ninety-six, respiration thirty-six, temperature one hundred. Rested well nearly all night. About the only complaint now is when he is moved in the least, and then his greatest solicitude is that his head and arm be carried along in exactly the same line with rest of the body.

Skipping the record of the next two days, his pulse on the 12th was eighty-six, temperature a hundred and three-fifths. Other symptoms as before, but everything slowly improving. Râles, except the valve sound, all gone; absorption of the clotted blood in the pleural cavity gradually taking place, and no special symptoms of interest. No fluctuation in the chest, and no sign of pus there. Wounds suppurating a trifle.

Society Notes.

GYNECOLOGICAL AND OBSTETRICAL
SOCIETY OF BALTIMORE.*January Meeting.*

The President, DR. HENRY M. WILSON, in the chair.
WILLIAM S. GARDNER, Secretary.

DR. W. P. CHUNN, related an instance of apparent growth of the placenta after labor.

The patient was twenty-eight years old, and had been married five years. She had had no children at full term, but had had three miscarriages. The first and second miscarriage occurred at about the fourth month of gestation. The last miscarriage occurred about May 10, 1890. She had missed one period and believed herself to be about six weeks pregnant. On May 10, she began to have bearing down pains and hemorrhage, with the expulsion of blood clots, lasting some three or four days. Then the pain subsided, the hemorrhage ceased, and I regarded the uterus as empty. On June 12, however, she was again seized with violent pains, and during the night was delivered of a placental mass larger than a man's fist, which I saw the next morning. The patient, as well as myself, was surprised. The foetus was searched for but no sign of it found.

DR. THOS. A. ASHBY: I have seen a somewhat similar case. The patient began to have hemorrhages about the sixth week of gestation. She was not under my care at that time, but I was called in four weeks subsequently, and she was then in the act of throwing off the foetus. At the time of its removal the foetus was apparently at the sixth or seventh week of gestation, and partly decomposed. The placenta was not affected by decomposition. Before I saw her she had been going around bleeding from this cause, and was not aware that she was about to abort. She had had five miscarriages between the sixth and eighth week in twenty-eight months, so she stated.

DR. G. W. MILTENBERGER: I have known the whole ovum to be retained for months after the death of the foetus. In a recent case the contents of the uterus were not thrown off till full term, though the foetus was dead at the third month.

I cannot understand the growth of the placenta in utero after the death of the child, but I can conceive of the growth of the placenta outside the uterus, on account of the peculiar relation of the blood-vessels.

DR. L. E. NEALE: I think it is very unfortunate that the specimen is not presented.

The placenta is not developed at the sixth week of pregnancy.

The conditions in extra-uterine pregnancy are very different from those in intra-uterine pregnancy, and what is true of one regarding placental development, is not true of the other.

I see nothing in the history of the case opposed to the belief that it was a very ordinary case of abortion (not miscarriage) with escape of the embryo and more or less complete retention of the sac, chiefly chorion that might have been removed by the curette long before it was ultimately expelled.

DR. L. E. NEALE read a paper upon

THE INDICATIONS FOR CÆSAREAN SECTION.

This paper is intended to stimulate interest in, and discussion of the subject: Cæsarean Section *vs.* Craniotomy on the Living Child, upon which subject a series of papers will be presented by the members

of the society. It refers particularly to the indications for the section, and is a plea for this operation.

If it serves to arouse interest in examining pelvis or increase hesitancy in destroying children, the labor is not in vain.

Craniotomy upon the living foetus is believed justifiable, but only as a dire necessity, not as an elective procedure, and should not be resorted to where there is a reasonable probability of success by the section, and the uncoerced consent of the mother can be obtained.

No man is compelled to do craniotomy upon the living foetus solely upon the choice of the patient or her friends.

In answer to the question, "What would you do if the patient were your wife, your sister, or a near relative?" he believed practically this must be a matter for each man's conscience, over which no dogmatic rule of science can or should have sway.

If seen early enough, the induction of premature labor at the thirty-second to thirty-fourth week, by the method of Krause, was a very strong antagonist to craniotomy upon the living foetus. The range for this operation should not extend to a conjugata vera below $2\frac{3}{4}$ inches (7 cm.) or to one about $2\frac{1}{2}$ inches (8.75 cm.)

The indications for the conservative section included all insurmountable obstruction to the delivery of the living and viable child *per vias naturales*.

They include tumors, pelvic exudations, hypertrophic elongation of the cervix, cicatrices, stenoses, tetanus utero falciform, uterine contractions, etc. He believed general opinion placed the limit for the absolute indication at a conjugata vera of $1\frac{1}{2}$ inches, or 3.75 cm., and the relative indication extended from that point up to an undermined conjugata vera measurement, and included many other conditions besides pelvic contractions. Other things being favorable a $2\frac{1}{2}$ inch, or 6.25 cm., conjugata vera (Harris); 3 inch, or 7.5 cm., conjugata vera (Lusk), called for section other than craniotomy, but he warned against relying entirely upon pelvimetry in the relative indication.

In contracted pelvis he preferred version to forceps when both were practicable. He insisted upon pelvimetry, and briefly outlined the methods. He believed it was chiefly by this means we could determine the indications for the section.

A conjugata vera of 3 inches, 7.5 cm., was generally admitted to be the least through which a living child of normal proportions could pass, and Lusk maintained, if other diameters were lessened or the contraction was not limited to the brim, it might require a conjugata vera of $3\frac{1}{2}$ inches, 8 cm., or more.

No hard and fast line could be given; each case must be judged alone. The relative size of the head, its resistance, the past history, the uncoerced consent, the general condition and surroundings of the patient, etc., were all important factors in the relative indication.

The life of the child was not "purely impersonal and scientific," but eminently personal and practical, and he believed the mother should run a reasonable risk in its interest. The life-saving of craniotomy could never be as great as that of Cæsarean section, for it started with a necessary mortality of 50 per cent., or half the lives at stake. But, aside from all argument and comparative statistics, the section was decidedly restricting craniotomy. All deprecate the repeated performance of craniotomy on the same woman. He accepted Carl Braun's rules for the relative indication.

Craniotomy was safer for the mother than section,

but piece-meal extraction was equally, if not more, dangerous. Ex. 92, conjugata vera $2\frac{1}{2}$ inches, 6.25 cm., or less.

If conservative delivery p. v. n. had been attempted, and failed, this was a strong point in favor of craniotomy and against the section, under these increased dangers.

He strongly deprecated the conservative tampering and then resorting to the section; many lives had been thus sacrificed. If we desired success we must make the section an elective operation, and not a procedure of dire necessity.

DR. MILTENBERGER: With regard to the paper of Dr. Neale's, confined as it is to the indications for the Cæsarean section, there is nothing which I would controvert.

Under the absolute or positive indications, as laid down, there can be no question.

The confusion and discrepancy of opinion have arisen from want of definiteness and clearness as to the relative indications.

If we take the statistics of craniotomy generally, including all cases, we get no positive resulting data to guide us.

Where the pelvis is so constructed as to necessitate the piece-meal extraction of the fœtus, it is recognized, undoubtedly, as the most serious of obstetric operations, and more dangerous than Cæsarean section.

Where, on the other hand, craniotomy alone is required, the operation is simple, and the danger to the mother, in proper hands, should not be greater than from the application of the forceps. In my individual experience on my own patients I have been obliged to resort to craniotomy but twice in fifty years, and in these, as well as in those in consultation practice, the mothers have all recovered.

Now, it is just in this latter class that the doubt arises.

The smallest conjugata vera diameter through which a living child has been expelled is 3 inches—or, as has been claimed, $2\frac{3}{4}$ inches—but with this we cannot expect to save the child through the natural passages.

But, whether this or a little more available space, we must recognize the prime and absolute importance, as the doctor states, of pelvimetry, and to its thorough practical study and application must we mainly look for increased certainty. Especially does this hold as to internal pelvimetry, the best instrument, by far, being the hand of the obstetrice.

Now, while it is true, the measure here of the conjugata vera by the finger may not be perfectly accurate, and we require also to learn the available space in the transverse diameter, yet with care it sufficiently approximates the truth for our purpose.

But on the other hand, as the doctor has said, we cannot accurately determine the size of the child's head, its degree of ossification, etc. It is true, by bi-manual examination we can approximate the truth, but not exactly obtain it. I have known an accomplished accoucheur persist for a length of time in the use of forceps before he recognized that he was dealing with a hydrocephalic head. Thus, both the factors have elements of uncertainty.

It is just in this class of cases that the doubt and uncertainty arises.

When the practical obstetrice meets with a case of dystocia from this cause, by internal measurement he satisfies himself as far as possible he has 3 inches of available space in the conjugata vera, or even above this; without a full knowledge of the size of

the fœtal head, he naturally applies the forceps, or proceeds to turn, and not improperly; but if he fails, he has already violated the first fundamental law in Cæsareotomy, to resort at first to the knife, without any previous operative manipulation, if such manipulation has been at all prolonged, the choice is not between craniotomy and Cæsarean section, but between craniotomy and a parrot.

Fortunately, pelvis contracted to this extent are rare in this country, particularly in the higher walks of life.

The operation of Cæsareotomy is in itself sufficiently simple, and the modern section is undoubtedly one of the greatest advances in modern obstetrics, while its success constitutes a brilliant epoch in our recent history. In the hands of those skilled in its technique, and taught and trained by experience, there is every reason to trust and believe that the modern Sænger will extend still farther its successes, and that as an operator gains tact and knowledge with every case with which he deals, and as a part of his success must depend upon his absolute command of his patient and her surroundings, it is most likely the old picture will be reversed, and with our septic and antiseptic precautions, hospitals will offer a smaller rate of mortality than private practice.

Fully realizing as I do the success of the modern Sænger, and the lessened mortality rate which has been achieved, yet we know that no abdominal section is entirely free from danger, and, as I said, in these cases of relative indication they may be claimed to be almost, if not entirely, void of peril with craniotomy.

I do not hesitate to declare that I should prefer, in my own wife, as the safer for her, craniotomy to Cæsarean section in such a case, and am, therefore, bound to extend to others, my patients, the golden rule, "To do unto others, as I would they should do unto me." I am, therefore, forced to the opinion that Cæsarean section will not completely supplant the old operation, and that there still remains a field, although markedly limited, for craniotomy on the living child.

DR. J. WHITRIDGE WILLIAMS: I am sure that all of us are greatly indebted to Dr. Neale for the very clear manner in which he has set forth the indication for the operations, and I almost entirely agree with him.

The absolute indication I would place at 5 to $5\frac{1}{2}$ cm., or 3 inches, and the upper limit for the relative indication at $7\frac{1}{2}$ cm., or 3 inches. Within these limits, unless the child be abnormally small, there should be no question as to the use of forceps; and the question to be decided is whether craniotomy or Cæsarean section should be done.

Theoretically, I would choose the section in all cases that appeared favorable; but practically, I might use my theory in the case of a primipara, who had not been examined previous to labor. For in that case it might appear very hard to submit a young woman to such a risk without any previous intimation of her danger.

But if I performed craniotomy under these circumstances I would warn her that in becoming pregnant again she would take the responsibility of the child's life upon herself, and that I would refuse to perforate in subsequent pregnancies.

The mortality of the operation need not dismay us, for Munchmeyer has lately reported the latest statistics of Leopold, in which he reports 28 Sænger operations, with the loss of three mothers and one child, and 7 porro operations with no maternal deaths.

DR. B. B. BROWNE: I had a case recently upon which I did Cæsarean section. The woman was twenty-seven years of age. She had had one child. Her labor was two years ago, when she had convulsions, and a craniotomy was done. As a result of injury received at this time, the vagina and uterus sloughed, and there was complete atresia of the vagina. This atresia was afterward opened up, and she became pregnant.

The vagina was contracted by cicatricial bands, and an opening could be felt in the side of the cervix, but to the left of the opening was a cup sloped cavity, which might have been the old cervix.

She was not sure of the time of impregnation. She was swollen, and her urine solidified with albumen upon heating. Labor pains began December 20, and continued for one or two days; but there was no dilatation. She came to the hospital December 22. She had severe uterine contractions that day, and came for the purpose of having Cæsarean section done. But next day the pains had all gone. The night of January 1 the water broke, and severe pains began. The cicatricial bands about the cervix were cut, and Elliot's forceps were introduced. Both blades of Tarnier's forceps could not be gotten on. After several efforts I concluded that she could not be delivered in that way.

In the morning the fœtal heart was distinct, in the afternoon it was feeble.

The section was made without difficulty. The placenta was attached in front. The child could not be resuscitated. The placenta was readily detached, and the uterus was cleaned out and closed by the Sænger method.

The operation was done on Friday, and the patient did well until the following Tuesday, when she sunk rapidly, and died within a few hours.

The woman had grave kidney disease, and had little chance of recovery on that account.

In this case several things are to be considered:

1. The woman was perfectly willing for the operation.
2. Her life, from the condition of her kidneys, was not insurable, and the child had a good chance of living.
3. She had much difficulty in the former craniotomy, and barely escaped with her life.

DR. ASHBY: I have had the good fortune to witness two Cæsarean sections. One, the case of Dr. J. G. Jay, of this city, several years ago, and the recent case reported by Dr. Browne. I was impressed with the ease with which the operation can be done. Its mechanical execution is certainly much less difficult than that necessitated by many intra-abdominal operations.

Hemorrhage is easily controlled, and the closure of the uterine wound is not a difficult undertaking.

In the case of Dr. Jay, the mother made a prompt recovery, and the child perished simply because of the unavoidable delay which was experienced before an attempt at its removal was made. Its death had, in my opinion, no relation to the operation, but to causes which antedated the section.

I am convinced in the case of Dr. Browne the child could have been saved had no other method of delivery been attempted. The section, I think, bore no relation to its death. In this case the operation was skilfully done, and I am inclined to believe that the mother's death should be assigned chiefly to her kidney complications. She was a bad subject, but bore the section well.

My opinion of the Cæsarean section is altogether

favorable. It has come to stay, and, with an improved technique and larger experience, will be approached with less hesitation.

The operation of the future will be approached without delay, and before other methods of delivery have been employed.

The important indication for the operation rests upon careful pelvic measurements and determination in advance of any obstetric interference of the impossibility of delivery by version or forceps. If this is done, the section will be approached under its most favorable aspects, and its results will be far more satisfactory.

I agree with Dr. Miltenberger, in that personally I would prefer craniotomy, if the patient were a member of my own family; but, upon scientific grounds, I would not hesitate to operate, did my patient and her friends elect this procedure, having satisfied my own mind that a living child could not be born in any other way.

I think it unfortunate that the physician in charge of these cases should not have the moral support of the public and profession in the selection of the section in advance of attempts at other methods of delivery. Out of deference to a sentiment, he often feels forced to use the forceps and version where his own judgment was in favor of the section.

Valuable time is thus lost, and the lives of both mother and child endangered, if not sacrificed.

DR. NEALE: As no points were raised against the paper, I have nothing to say in its defense.

I did examine Dr. Browne's case, and told him in my opinion it was no case for the section.

The chief obstruction was in the soft parts, that the pelvis was very slight, if any. I thought it possible to deliver the child alive, *p. v. n.*, but was sure it could be readily extracted after craniotomy. Owing to the kidney complication, the mother was in most unfavorable condition for the section, and, for that matter, the child also; therefore, I advised against this operation.

However, after once beginning a conservative delivery, *p. v. n.*, which was persisted in too long (thirty minutes), I certainly never should have resorted to the section in that case, with both child and mother in the then most unfavorable condition, but would have delivered at once by craniotomy.

I totally and emphatically differ from Dr. Ashby, that any conscientious obstetrician should ever be forced to resort to craniotomy by the moral suasion of the patient or her friends. Such teaching would be extremely pernicious.

The sentimental question of what one should do if the patient were his wife, etc., is a matter of individual conscience, and not open to scientific discussion before a medical society.

I again request the fellows not to let this matter rest where we have it to-night. I wish to emphasize the fact that I have purposely avoided any reference to the religious aspect of this question, as I do not believe this point is open for scientific discussion before a medical society.

410 HANOVER STREET.

"You claim that you were insane when you proposed to her?"

"Yes, sir."

"Can you prove it?"

"Yes, sir."

"How?"

"By producing the plaintiff in court and letting the jury look at her."

The Polyclinic.

MEDICO-CHIRURGICAL HOSPITAL.

SINUS TREATED WITH PEROXIDE OF HYDROGEN.

AN old woman had stepped on a nail, which penetrated the foot almost to the superior surface. A sinus formed, and had been discharging for two months when the patient was first seen. Marchand's peroxide of hydrogen was injected into the sinus by means of a hypodermic syringe. The first effect was to destroy the leather of the piston. The sinus was found to be of a horse-shoe shape; the probe passing almost through the foot, between the metatarsal bones, and when the peroxide was injected a hard lump could be felt one inch from the opening on the sole of the foot. This was laid open, and a stream of peroxide was sent through. Result: Cured in a week.—*Waugh.*

ERYSIPELAS AND INSOMNIA.

In the case of a lady sixty-nine years of age, suffering from erysipelas of the leg, $\frac{1}{8}$ -grain pilocarpine hydrochlorate was given every four hours. The drug acted well on both skin and salivary glands, and the erysipelas at once began to fade. An elastic bandage was also applied to the affected portion of the leg. The pilocarpine was then discontinued, and the erysipelas appeared above and below the bandage; but quickly faded when the rubber was extended completely over the affected skin. For the insomnia attendant, half a drachm of somnal was administered in curacao cordial with the happiest effects. The sleep was natural, and no nausea or headache was manifest next morning.—*Waugh.*

DIGITALIS AS A HYPNOTIC.

There are certain conditions in which the ordinary hypnotics fail, when digitalis acts very nicely. Many years ago, when the writer was resident physician in an insane asylum, he found that a few cases of chronic mania could be kept quiet at night by digitalis, when all other remedies had proved useless. Recently, in treating a lady who had just recovered from pneumonia, the following symptoms were manifested: Irritative cough, with no expectoration, pain and tenderness at the right edge of the sternum in the second intercostal space and complete insomnia. The lady was not very strong, and had lost her sisters by phthisis. Chloral, bromides, lupuline and morphine had failed to relieve the insomnia, when, the other symptoms noted having appeared, she was given digitalis to prevent a bronchial hemorrhage. She slept very well that night and subsequently; the other symptoms being relieved as well.—*Waugh.*

TREATMENT OF DISEASES OF THE UTERINE APPENDAGES.—1. When a definite tumor of the appendages is found in the pelvis of a woman who complains of pain and perhaps hemorrhage, I am strongly of opinion that the condition should, as far as possible, be described to her, and abdominal section recommended after the risks attaching to it have been fully explained.

2. If the tumor be a dilated tube, the same course should be adopted, as even a hydrosalpinx may set up peritonitis. The old methods of treating dilated tubes either by tapping per vaginam or by electricity are not only unscientific, but also more dangerous than abdominal section. In any case where the

symptoms and physical signs lead one to suspect tubal gestation, it is our duty to insist on operation without delay.

3. In cases where the tubes are thickened from chronic salpingitis, with perhaps the ovaries enlarged and tender, or even prolapsed, tonics, aperients, repeated blistering, hot vaginal douches, and glycerine tampons should be tried for a couple of months, and if at the end of that time there be no improvement, then I do not hesitate to advise the removal of the appendages, provided the patient suffers sufficiently to run the risk of the operation.

4. If after one or more attacks of pelvic inflammation a woman suffers pelvic pain, dysmenorrhœa and dyspareunia, and perhaps menorrhagia, the great likelihood is that careful pelvic examination will detect the ovaries and tubes matted together and to the surrounding structures, and the mobility of the uterus impaired, but where probably no definite tumor can be made out. What should be our line of practice in a case of this kind? Are we to pin our faith on Epsom salts, like some do, and when this drug fails to fold our hands, express the deepest sympathy with the sufferer, but on no account suggest any operative interference? Surely, this practice is just as reprehensible as the opposite one, where the appendages have been removed without obvious disease, but for some neuralgic affection. From personal experience of these cases, I know that nothing short of abdominal section will cure, that the operation is usually extremely difficult, and that the ultimate result is correspondingly satisfactory.

5. In cases of congenitally ill developed ovaries with an acutely ante flexed uterus associated with marked dysmenorrhœa and sterility, I would first under anæsthesia widely dilate the cervical canal by means of Hegar's dilators; this failing, electricity might be tried, and as a last resource nothing is left to be done but removal of the diseased ovaries. With regard to the question of unsexing a woman by the removal of her appendages, it need not influence our treatment in the conditions mentioned under the above five headings, seeing that she is already unsexed, as the appendages are practically useless as far as procreation is concerned; and the subsequent history of those of my patients who are married bears out the statements of other observers that the sexual appetite is not usually diminished by the operation; indeed, in some cases the opposite result ensued.

6. Whenever, on opening the abdomen, the operator finds the ovaries and tubes fixed by adhesions, he should break down the latter with his fingers, and then, having brought the appendages into view, carefully examine them for any well-marked visible or tangible signs of disease. If no marked departure from the normal be made out, then it is the operator's bounden duty to stay his hand from removing the appendages. I firmly believe that the cause of the patient's symptoms is, in not a few cases, the presence of adhesions, and that when these are broken down it is unnecessary to proceed further; but how many operators have the moral courage to do this? One or two dilated follicles seen on the surface of an ovary are thought sufficient to justify the spraying of the patient.

7. Inasmuch as there is usually an absence of disease of the appendages in cases of ovarian neuralgia occurring in neurotic subjects, any local interference is not only unnecessary, but absolutely unjustifiable, and the same remark applies in great measures to cases of hystero-epilepsy and other mental disorders.

—Duncan, *Lancet.*

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SUDDEN DEATH.

THE mind of man universally revolts at the idea of sudden death. The best of us are but poorly prepared for such an event; and for the ordinary man to be suddenly stricken down in the midst of his daily avocation and swept into the presence of his Creator, without a moment for preparation—without time to summon up courage to meet the awful thing we call Death, with all its misty possibilities—can never be anything but appalling. And this unwillingness to die is not confined to those who have a well-grounded fear of the justice they expect. There is said to be a tradition that no Pope who neglects to change his name on the assumption of the triple crown has ever been known to survive his coronation for the space of a year; and no Pope in recent times has cared to take the chances and keep his baptismal name.

Sudden and unexpected death, of persons supposed to be in good health, is not an infrequent occurrence. Scarcely a week passes that some one is not stricken down suddenly from a condition of apparent health. That this can be the case illustrates the astonishing carelessness shown by men generally in regard to their health. They go every six months to their dentist, that any beginnings of decay may be detected and stopped before they have become serious. But how many go to their physician, to see if decay has commenced in heart or lung, kidney or brain? With all our boasted modern civilization, we stumble along in the old blind fashion, without enough sense to induce as much ordinary care of our own health as the farmer gives his stock. Practically, men never take the possibility of death into account, but coolly make their plans as though they were to go on living until an indefinitely remote epoch. We are firmly convinced that the ancient sage who said he was planting apple-trees for posterity, as he was too old to have any expectation of eating the fruit, did not believe anything of the sort, and secretly resented the doubt as to his survival implied by the question. That many lives would be prolonged, were the

physician to make periodical examinations like the dentist, cannot be doubted. Life insurance examinations often disclose unsuspected defects, though these poorly paid investigations are rarely as thorough as they should be.

The country has not yet forgotten the death of Secretary Windom. Supposedly in perfect health, he goes to a banquet, where he probably eats and drinks largely; gets up and makes a brilliant speech, in which he quite surpasses himself, everybody noting his unusual vigor; sits down, and, before the applause has ceased, falls over, dead. Now, the question arises: How comes it that this man was permitted to run this risk? Sound men do not die in this way. There was pre-existing disease of this man's heart or brain, or he could not have died so suddenly. And, if so, it was his doctor's duty to know it, and to forbid banquets and exciting speeches. But the laws of Nature are inexorable, and she punishes us, cruelly, we think, for our ignorance as well as for our negligence. And yet we pray: *From battle, murder, and sudden death, Good Lord, deliver us*; from week to week, without troubling ourselves with the slightest precaution to avoid the latter evil.

Dr. George D. Wilcox, of Providence, R. I., presented the Medico-Legal Society of that State a paper upon Sudden and Unexpected Death, which is published in the *Medico-Legal Journal* of December, 1890. He tells us that over 3,000 sudden deaths occur annually in England and Wales from unascertained causes. Among the causes that have been found he enumerates the following: Ambulatory typhus, pneumonia, peritonitis, and meningitis. Such affections may run a latent course, and be unsuspected until they end in sudden death. A circus clown fell dead in the midst of his performance; the autopsy revealed an immense single tubercle of the brain. Cerebral congestion, hyperæmia, anæmia, hemorrhage, serous exudation, compression, and concussion, all have contributed to sudden death. Sudden fright he considers a form of concussion.

Causes of sudden death referable to the heart and blood vessels are valvular insufficiencies, rupture of the walls of the heart, fatty degeneration of the muscular tissue of the heart, brown atrophy or granular degeneration of the substance of the heart, dilatation and hypertrophy, rupture of aneurisms, atheromatous degeneration of the aorta, and more particularly of the coronary arteries, entrance of air into large veins, as in surgical operations on the neck, likewise into the uterine veins after the separation of the placenta, acute cyanosis.

In the respiratory organs, occlusion of the air passages by foreign bodies, tough mucus, etc.; spasm of the glottis; the sudden bursting of an abscess or an empyema into the bronchial tubes, œdema of the lungs, large and rapid effusion of serum or entrance of air in the thoracic cavities, pneumonia, and likewise bronchitis in their varied forms; the formation of extensive fat emboli in the air cells of the lungs, connected in some mysterious way with fracture of the bones.

In one case of obscure intestinal trouble the patient died suddenly and unexpectedly. The autopsy

showed that a copious pleural effusion had occurred; the intestinal disease proving to be cancer of the sigmoid flexure.

In another case death resulted from heart-clot, attributed to the exertion caused by the patient combing out her hair the first day she sat up after a pneumonia. Another case of the same sort occurred from combing the hair after a confinement.

A man in the delirium of double pneumonia got up and ran up stairs to the third story, dropping dead on the top step. These are comparatively common occurrences, and all probably to be attributed to the heart. It is to be regretted that so few autopsies are held in cases of sudden death, for in many cases the diagnosis of "heart disease," that so easily satisfies the public, would be found incorrect.

Annotations.

SHOULD THE EDITORIAL GO?

A CONTEMPORARY has announced the discontinuance of its editorials, which will hereafter appear only occasionally.

It is assuredly wise, if one has nothing to say, to say nothing. The necessity of grinding out an editorial every week becomes irksome; and, whenever the duty becomes perfunctory, when the writer writes simply to fill an allotted space, the product of his pen is not likely to prove either entertaining or profitable to the reader. But, should he not have something to say? We are assured that this is a wonderful era in medicine: that new antiseptics (it was antipyretics last year) follow each other so fast that each one treads his predecessor out of sight before we have had a good look at him. New and startling ideas are promulgated, and, before we have quite mastered the problem of their true paternity, they are exploded. The wily homœopath seeks to ensnare the rural legislator, and capture the citadel of our schools. There are still wrongs to right; errors stalking abroad in open day; dark corners that would be the better for a ray of even the dimmest candle-light; and, while these things be, the editor cannot be spared. But there exist, likewise, in this world things called corns, and their owners dislike to have them trodden upon; and, unless one has wisdom in avoiding these tender subjects, he had better retire into the safe retreat of silence.

STAUNTON, VA.

WE have received a beautifully illustrated pamphlet from the Staunton Development Company, of Fifth and Chestnut streets, Philadelphia. Staunton is one of the Virginia towns that have recently attracted the attention of Northern capitalists, and efforts are being made to bring before the public its beauties and resources. Both are well set forth in this publication, which our readers will find of considerable interest. Virginia is at last to be Americanized. Her mines are to be opened; her forests hewn down; her water powers utilized. Her worn-out fields, exhausted by slave labor and vicious cropping, are to be rejuvenated by guano elixir, and farmed according to the most approved methods of modern agriculture. The pure air of her mountains is to be dimmed by the smoke of factories; the wild creatures of her forests will become extinct, and the

grand race of men who held back the weight of the entire North for years, will be replaced by a mongrel horde of European immigrants. And the next census will tell the proud story of progress. There be those who love better the baying of the hound on the mountain than the hum of machinery, who prefer the long, lithe mountaineer to the pallid operative as a type of manhood; but they are conscious of being old-fashioned and behind the times.

Just now there are no more charming places to visit than these old Virginian towns, before the modern Vandals have sacked them. We never have been able to comprehend why people go year after year to other resorts and neglect the Virginian valleys. Whether they are good and desirable localities in which to buy lots and take up a residence we are not prepared to say.

Letters to the Editor.

DOES OZONE ARREST OR MODIFY CERTAIN DISEASES?

TOO little is known of the peculiar allotropic condition of oxygen (ozone), especially by the writer, to permit him to enter into a free discussion of its merits, or its influence in effecting so much as is claimed for it by many of the medical profession. My object is merely to draw your attention to the subject by reciting a few facts that have been observed by the writer within the past twenty years. I give them for what they are worth, claiming nothing definite or positive; that ozone or the peculiar condition of the atmosphere surrounding the country embraced by my observation, has anything to do with the absence of the diseases I will allude to as I proceed. Knowing how common consumption, asthma and hay-fever are found in all grades of society in Baltimore, my attention after a few years of observation among the thickly settled portions of Kent county, Maryland, was called to the entire absence of the above mentioned diseases from the rising population of that section, notwithstanding the great exposure that nearly all the male portion are subjected to, from the nature of the business followed, namely: Oystering and fishing, which demands their labor at all seasons, especially the short day season, from September to April; high winds alone arresting their work, otherwise rain or shine, they are on the water. After twenty years close observation and inquiry, I have not heard of a single case of consumption, hay-fever, and with a single exception, not one of asthma.

Naturally the question arose, Could there be any local cause producing this rare occurrence of an absence of such a fatal complaint as consumption, which carries so many thousands to an early grave?

Some have claimed that it was due to an antagonism between malarious and pulmonary complaints. This is a poor explanation, and utterly fallacious. Another reason is that it is attributable to the salt air. This is equally erroneous. The question arose, What other condition of the atmosphere could explain, or permit a speculation as to the cause? I have seen severe cases of hay fever relieved in one night, and entirely disappear within twenty-four hours. The same I have seen with desperate cases of asthma; all symptoms disappearing the second night; many other cases with common catarrh have been relieved within a few hours, and in every instance there has followed a strong desire for food and sleep.

Repeated experiments, commencing at a point on the bay, known as Tolchester Beach, and extending south to the mouth of Chester river, prove most conclusively that during all seasons and winds there is something in the air that rapidly decomposes iodized starch paper, and as the action is similar to the action of ozone on the paper, I am convinced that the chemical change is due to ozone, although you are all aware that nitrous acid would produce a similar reaction.

At Tolchester Beach the action is very marked. Along with Dr. M. S. Butler, of New York, a number of experiments were made during September, and it was surprising to see how quickly the action took place, even with dry paper while the stopper was out of the bottle. One singular result was observed, that whilst the paper was highly colored on leaving the shore, it was entirely lost before reaching the city, which fact was accounted for by the arrest of the action on the salt, and the evaporation of the freed iodine.

Samples of the paper have been sent to different sections of the country by Dr. M. S. Butler, as well as myself, with directions as to its use. Most of it came back without the least change. In several cases, one at North Port, Michigan, there were some indications of a feeble action. Dr. Butler being a great sufferer himself, and feeling so much better while there, he felt anxious to find some place that gave the same result as proven at Tolchester and Rock Hall, with better accommodations for invalids like himself. Dr. Butler has retired from the profession, and is well known in New York city.

It is said that ozone prevails to a certain extent in the regions of pine, and in such sections lung troubles are rare. I only give this as hearsay.

The next question that permits of much speculation is, To what agency can this allotropic condition of oxygen be due, provided it is ozone that produces the chemical action as stated?

It will be observed that I do not claim that it is ozone. The geological surroundings of the section alluded to may, perhaps, justify a theory based on the fact that I think has been proven—that rapid streams passing over rocks and other obstructions have more or less ozone mixed with them. The limit of salt water is near the point of the most activity observed by the test paper; and here is where the great body of the fresh water of the Susquehanna meets the tides of the bay, which run very rapidly. The question is, Can this peculiar condition be caused by the friction of the mingling of the waters and the setting free of the ozone, if, as stated, it is found in abundance in such streams as fall rapidly towards tide water? The main channel of the Chesapeake is near the land on the Eastern shore, and runs in and out very rapidly, with an average of but fourteen inches variation between high and low water. Along the shore the quarternery formation is prominent, which drops into the miocene a few miles below. On the highlands of the former abundant evidence is seen of the vast flood that brought down the large deposit of Potsdam sandstone seen on many farms. I present samples of paper developed at Tolchester and Rock Hall.

A. P. SHARP.

BALTIMORE, MD.

DR. SARAH POST recommends that vaginal douches be not employed in the treatment of unmarried women, as they are likely to excite sexual orgasm.

—*Am. Jour. Obst.*

Book Notices.

ILLINOIS STATE BOARD OF HEALTH. Seventh Report on Medical Education, Medical Colleges, and the Regulation of the Practice of Medicine in the United States and Canada, 1765-1891. Medical Education and the Regulation of the Practice in Foreign Countries. By JOHN H. RAUCH, M.D., Secretary, 1891.

For the first time in its history the report on Medical Education, issued by the Illinois State Board of Health, embraces the medical institutions of the whole world. This is a feature that will be an assistance to medical boards that have to determine the value and validity of a medical diploma.

As regards medical education in the United States, the Report shows the marked changes for the better that have taken place in the past ten years, and it is seen that more progress will be made within the next two years. Most of the changes for the better that have been made in this century have occurred since 1881, when the first number of this Report was published, and since 1882-83, when the schedule of minimum requirements of the Illinois State Board of Health went into effect. In 1882 only 45 colleges in the United States and Canada required educational qualifications for matriculation; now the number is 129. Of the 148 medical colleges, 123 now teach hygiene, and 119 teach medical jurisprudence. In 1882 these branches were taught in 52 and 61 colleges, respectively. In 1862-83 the average length of the lecture terms was 23.5 weeks; the average is now 26.3 weeks. There are now 111 colleges that have lecture terms of six months or more, while in 1882-83 the number was 42. A table shows the results of the examinations before the State Boards of Medical Examiners of Alabama, Minnesota, New Jersey, North Carolina, South Carolina, and Virginia since the dates of their organization. Another table shows the results of the Prussian State Examinations in 1890.

Special attention is called to the fact that in some of the largest universities in this country courses preliminary to the study of medicine are now offered, while Harvard has made arrangements by which those intending to study medicine can take a special A. B. course in three years. The course offered by the University of Wisconsin is fully outlined, as is the one that was proposed by the Medical Department of the University of Michigan, but was rejected by the joint faculties. The Report shows a marked increase in requirements as to preliminary education during the year 1890. It shows also that the movement for four years' study and three courses of lectures is an assured success, and a list is given of the colleges that have adopted, or will soon adopt, the requirements of longer terms of study.

Several State Boards, having authority similar to the Illinois Board, have already adopted the requirement in this respect, and those that have not already done so will, in a short time, co operate in the movement. The potency of this factor will be appreciated when it is considered that these boards directly control the recognition of diplomas in an area embracing about 41,000,000 people, and indirectly in almost the entire area of the United States; and that a number of them exercise jurisdiction in the new States and Territories.

It is suggested in the Report that, with four years' study and three courses of lectures assured, the boards of medical examiners and the colleges should co operate in establishing a system of registration of medical students before they enter college, in order

that the requirement of one year of study outside a college may not be mere form.

A correct résumé of the medical practice acts in the different States and Territories is a valuable addition to the Report. Comprehensive tables show the progress made towards higher medical education in the past ten years, with the number of matriculates and graduates for each year, and the percentage of graduates to matriculates. These tables show the effect of the schedule of minimum requirements of the Illinois Board after the session of 1882-83. In 1882-83 the total number of medical students in the United States was 12,274, while in 1884-85 it was 10,987; and the 12,000 mark was not reached again until 1887-88. The percentage of graduates to matriculates in the United States has fallen from 35.8 in 1881-82 to 30.1 in 1890. The percentage in Canada has not reached 24 in ten years.

That portion of the Report devoted to institutions and regulations in foreign countries contains in full the requirements of the examining boards in Great Britain, with the names of all the medical schools and of all the hospitals in which instruction is given. The requirements as to preliminary education in foreign countries are given for purposes of comparison, as well as the requirements for graduation and for the license to practice. The course of study and the semesters in which the various subjects should be taken up, as advised in the German universities, as well as a description of the German method of examining for the license to practice, are given in full. In addition, the correct names and locations of foreign medical institutions are given.

The Medical Digest.

PHILLIPS, in the *Atlanta Medical and Surgical Journal*, describes a case of rupture of the membrana tympani, caused by the injection of warm water into the auditory canal for the removal of impacted cerumen.

IN DIPHTHERIA, Seibert (*Med. Record*) employs chlorine water hypodermically, by means of a syringe with a long nozzle, ending in several points. By this the chlorine is carried into the submembranous tissues. The solution should be freshly prepared. The results are said to be good.

FOR ENURESIS—

R.—Tinct. cantharidis..... gtt. xvj.
Mucil. acaciæ..... 3ij.
Pepsin cordial, P. D. & Co. 3xiv.

M.—S. 3j ter in die.

—*The Country Doctor.*

FOR ERYSIPELAS—

R.—Ichthyol..... 3ij.
Ether..... 3ij.
Collodion..... 3iv.

M.—S. Paint over and around infected area.

—*Prov. Med. Jour.*

CALMATIVE FOR HYSTERIA—

R.—Chloral hydrat.,
Sodii bromid āā 3j.
Ext. hyoscyami..... gr. ̄.
Ext. cannabis indicæ..... gr. ̄.
Mucil. acaciæ..... 3ij.

M.—S. Dose, two to four drachms, every half to one hour, in a cup of orange-flower-water. Specially useful for hysterical persons who complain of night terrors and insomnia.

—Grassett, *La Méd. Moderne.*

FOR DIPHTHERIA:—

R.—Sodium benzoate..... gr. xxx-lxxv.
Aqua dest..... 3j.
Peppermint water..... gr. xl.
Syrup of oranges..... gr. xxv.

M.—Sig. Take in teaspoonful doses.

—*Sevestre.*

THE CURE OF HYDROCELE.—Prof. John A. Wyeth always cures hydrocele by injections of pure carbolic acid. All the liquid must first be drawn off with an aspirator. About thirty minims of carbolic acid is a sufficient quantity to sear the sac. This is not as painful as might be supposed. The first effect is to cause swelling, which soon subsides. In fifty operations two cases only have failed to be cured by the first injection.—*Practice.*

DR. BLAKE'S remarkable case of a nail driven into the skull has been paralleled by one described by Drs. Dewey and Riese. In this case the man had been an inmate of the asylum for over two weeks, when the nail was discovered. Nothing was known as to how it got in, but it was probably inserted by the patient. The nail was removed, and death ensued five days later.—*Amer. Jour. Insanity.*

A POOR woman in Glasgow, Scotland, exasperated beyond all measure at the continued drinking of her husband, deliberately broke his leg one day. He was forced to remain in the house for two months, and fully recovered, and was temperate ever after. This was a very effectual remedy, but not a practical one to recommend to others. Many of the extraordinary remedies urged for the cure of inebriates are equally absurd, and yet they are supported by histories of cases and by many good but unreasoning men.—*Jour. of Inebriety.*

If unsuccessful try again, applying the remedy to the neck.

TREPHINING FOR HEADACHE.—Prewitt (*Weekly Medical Review*) reports a case of severe headache, of sixteen years' duration, dating from a blow. The left eye had been sightless for nine years; this resulting from an attack of measles. When the operation was performed, the bone was found to be greatly thickened; this being the only lesion discovered. Some subarachnoid fluid was evacuated, and the wound closed. The sight returned to the left eye some hours after the operation; a good recovery ensued, and the headache was greatly relieved. Two buttons of bone were removed, on either side of the occipital protuberance, and the intervening bone chiseled away.

SANTA BARBARA'S CLIMATE.—Our meteorological correspondent at Santa Barbara, furnishes the following summary of the weather at that favorite resort, for 1890: The mean temperature of the year was 60.2°. On 41 days the temperature rose above 80° in the warmest part of the day, and on 6 it fell below 35° at night; while there were but two nights when it did not fall below 65°. The highest temperature was 98°, and the lowest 33.5°. There were 238 clear days, 47 fair days, and 80 cloudy. There were 21 days when the rainfall was over one-tenth of an inch, but only 8 that could be called rainy. The mean relative humidity was 70, and the average velocity of the wind 3.3 miles an hour, while the greatest movement in any one day was 249 miles or less than 10.5 miles an hour.—*Occidental Med. Times.*

FOR PRURITIS OF ECZEMA.—

R.—Gelatine..... dr. iv.
 Zinc oxid..... dr. iiss.
 Glycerine..... oz. ss.
 Aquæ..... dr. vi.

Heat the water; in it dissolve the gelatine, then add the glycerine and zinc, stirring until cold.

This makes a stiff jelly. When used it is to be heated sufficiently, so that it may be painted with a small varnish-brush all over the affected parts, and then a thin layer of cotton placed over it at once.

—Vanderbeck, *Pacific Med. Jour.*

DRS. FINLAY AND DELGADO, of Havana, report fifty-two cases in which persons had been inoculated by mosquitoes that had bitten persons suffering with yellow fever. Of these, twelve experienced between the fourth and the twenty-sixth day after inoculation a mild attack of yellow fever, with or without albuminuria; twelve experienced no symptoms of yellow fever either within twenty-five days after the inoculation or during three years subsequently; twenty-four experienced no symptoms within twenty-five days, but contracted a mild attack before the end of three years, either uncomplicated by albuminuria altogether or with only a very transient appearance of it; three who had had no symptoms within twenty-five days contracted well-marked yellow fever within three years; one patient who had a mild attack in consequence of inoculation contracted a severe attack later on, which proved fatal.

DRAINAGE AND ANTISEPSIS.—The seed and the soil, and the varying conditions of each, must ever be kept in consideration. When in doubt of infection in a wound, especially when its character will be likely to be attended with an abundant albuminoid secretion, drain; but let the surgeon ever remember that the highest theoretic condition of wounds is their restoration, as nearly as possible, to the normal relation of the tissues, and their retention at rest in an aseptic condition. This, in a great majority of wounds, renders drainage not only unnecessary, but when applied, it will be a positive detriment and a source of danger. I am assured that the better knowledge of the conditions of wounds will restrict the use of the drainage-tube to septic wounds, and that operative wounds in aseptic tissues will be aseptically maintained by primary closure without drainage.—Marcy, *Jour. Am. Med. Asso.*

TREATMENT OF VENERIAL DISEASES.—For syphilis, there are three methods in use:

1. The radical cure, or Hutchinson's plan: Small doses of mercury are given for a very prolonged period, with a view to prevent the appearance of tertiary or even secondary symptoms.

2. The ordinary London plan: Treat the symptoms of syphilis as they arise, by the internal administration of mercury.

3. The expectant, or Edinburgh plan: Use only local applications to cure the earlier syphilitic manifestations, and avoid giving mercury internally.

This is the best method of treatment. The tertiary stage of syphilis should be treated by very large doses of iodide of potassium (30–60 grs. ter die). "Soft chancre" often produces a bubo, which should be treated as a "soft chancre" of the gland—not as a mere inflammation. Gonorrhœa (in the male) if treated in the earliest stage by capsule of sandal wood oil (℥ x to ℥ xv ter die) can often be cured in a fortnight or less, as the urine is thus rendered completely antiseptic.—Wainwright, *Med. Press.*

WE have before us the report of a case where Dr. Neal Hardy, local surgeon of the Pennsylvania Company at Upper Sandusky, Ohio, amputated at the hip joint by first making an abdominal section and having an assistant compress the descending aorta with the fingers to prevent hemorrhage, which was successfully done, and the patient has made a good recovery. Dr. D. Hayes Agnew states that to his knowledge this is the first operation of this kind ever performed. Dr. Hardy is to be congratulated upon the results of this operation.

By referring to page 168 of *Railway Surgery* it will be seen that J. J. Buchanan, of Pittsburg, Pa., suggested this procedure in a paper read in October, 1888, at a meeting of the Pennsylvania Company's surgeons, and his suggestions were received with favor by the surgeons present at the meeting, but it was left to Dr. Hardy to make the first operation, and we are greatly pleased with the result.—*Jour. Railway Surgeons.*

OPERATIVE TREATMENT OF SYMPATHETIC OPHTHALMIA.—Mr. Story read a paper upon operations on eyes blinded by sympathetic ophthalmitis, and gave the details of several cases operated on by various methods. His conclusions were that during active sympathetic inflammation no operation should be performed, and that after the subsidence of the inflammation the best operation is that proposed by the late Mr. Critchett, in which the lens capsule is divided by two cutting needles. If glaucoma occurs during active sympathy, and an operation is absolutely necessary, he would incise the cornea or sclerotic, but not do an iridectomy. Mr. Critchett's operation is better than iridectomy or extraction of the lens, because no hemorrhage is produced, and less occasion is given for a fresh outbreak of inflammation. It has the great additional advantage of not making an opening in the globe through which a fluid vitreous may escape, as has been observed by Mr. Story, even when performing a simple iridectomy in an eye blinded by sympathetic ophthalmitis.

—*Med. Press.*

TREATMENT OF DYSMENORRHOEA.—Professor H. Marion-Sims, while lecturing on obstructive dysmenorrhœa, said, if it be due to stenosis the cervix will be found perfectly straight, the canal straight, but the mouth of the womb will be narrowed and the os small. The flow is then impeded by the narrowness of the canal. In the treatment of this condition he does not trust to the use of dilators alone to widen the canal, but combines division of the cervix with dilatation of the canal. He overcomes the resistance of the os internum with one swoop of the knife which the dilator will accomplish only after a long time. Besides being the quickest, it is also the most humane procedure from the patient's standpoint, because she experiences no pain from the operation, being etherized. In the operation for simple stenosis of the cervix, take the urethrotome, make a small incision on the right side of the cervix and then another similar incision on the left side, till the sound passes into the uterine cavity with absolute freedom. Then taking the dilator (Sims' dilator is the most practical one of all), introduce it and dilate until the calibre of the cervical canal is about equal to half an inch or so. Then introduce the rubber stem to keep the canal open, leaving it in position for from six to seven days. The operation is not a bloody one in any sense, and is entirely free from risk.—*Practice.*

FOLLICULITIS CAUSED BY MINERAL OIL.—Leloir observed in the large spinning factories in the north of France, a papular and papulo-pustular inflammation of the hair-follicles and of the surrounding tissue, from which almost all the male employés suffered. It usually is situated on the anterior surface of the thighs, and on the calves of the legs, less frequently on the upper extremities, and is symmetrical. The workmen who have charge of the machinery, by wiping their oily hands on their trousers saturate them. By the continuous contact of the oily trousers with the skin a folliculitis or even a perifolliculitis is set up. The custom of cleaning the hands on the trousers over the front part of the thighs, or over the calves, explains the situation of the disease. The worst kind of mineral oil is used for oiling the machinery in these factories. The disease, when its etiology is borne in mind, is easy to diagnosis; it looks very much like tar acne, and is often mistaken by the inexperienced for prurigo or scabies.

The cause being removed the disease gets well of itself in a few weeks.—*Pacific Med. Jour.*

NEW USES FOR ARISTOL.—The desirable antiseptic properties of aristol commend it to the attention of dentists. The writer some months ago advised a student in one of the Philadelphia dental colleges to test its virtues in the treatment of ulcerations and for the disinfection of cavities. The observations thus far conducted have been eminently satisfactory, aristol having shown a powerful influence in controlling and arresting pus-formation.

The writer has recently been using aristol with the lighter petroleum products, in the proportion of ten grains to the ounce, for the treatment of naso-pharyngeal catarrh, and finds it an excellent method of producing a re-establishment of the healthy secretions. After the use of Marchand's atomizer with a weak solution of the peroxide of hydrogen, the aristol, prepared with blacolone, albolene, or terralline, may be used in the same manner (sprayed), by which process the affected tissues are protected by an antiseptic oily substance. The method commends itself owing to the harmlessness of the aristol in the proportions indicated, and the satisfaction of the patient in having something which he can use to advantage himself.

—*Med. Summary.*

LUPUS.—Apart from the question of its direct influence on the lupus itself, some collateral observations of much interest have been made as to the possible results from Koch's fluid. I am told that it has repeatedly caused general erythematous eruptions on the skin, and, in some, nodular effusion into the cellular tissue. In one case the inflammation of the lupus (on the face) passed into unquestionable erysipelas of a rather severe type, and the patient was for some time in danger. In two cases, at least, during the febrile reaction old chilblains became again inflamed.

If we are obliged to report that nothing that can be called a cure of lupus has yet been obtained in London practice, it may seem unnecessary to ask whether cures are lasting. On this point, too, however, I am sorry to say that some evidence is already forthcoming. I fear it is the fact that relapses occur very quickly. The patient who was taken to Berlin by Mr. Malcolm Morris and Dr. Pringle, and was for a time supposed to be almost cured, is now, I am assured by both the gentlemen concerned, in a condition almost as bad as before the treatment.

—Jonathan Hutchinson, *Lancet.*

TREATMENT OF CHOREA.—Having advocated chorea as a rheumatic manifestation, it appears that anti-rheumatic treatment is not much good. During the treatment of my last case I was surprised with the rapidity with which the case was cured by a combination of salicylate of soda and arsenic. The case had lasted for eleven months, and there was no improvement, although arsenic had been faithfully tried by two medical men. When the rheumatic attack occurred, and she was saturated by salicylate of soda, and when the salicylate was stopped and she was placed on arsenic in increasing doses, she recovered in four weeks' time. When the choreic movements returned again, and she was placed on the two together, she recovered in two weeks. The salicylate was at first pushed and then continued three times a day, at the same time the arsenic was given in increasing doses. As there are no statistics on this combination, I am not prepared to say that it will reach the same in every case; but if there is a case with a distinct rheumatic history, I think one ought to get the same results, as no doubt the salicylate controls the rheumatic poison while the arsenic acts as an alterative to the nervous system.

—Brown, *Montreal Med. Jour.*

ACTION OF POISONS ON NERVE CELLS.—Aconitine nitrate has a very remarkable action on nerves; it rapidly destroys their irritability. Its effect so far as we have seen, is independent of the kind of nerve-fibre; it is effective with the medullated cervical sympathetic fibres, and with the non-medullated fibres beyond the superior cervical ganglion; with the afferent and efferent fibres of the vagus; with the afferent and efferent fibres of the crural nerve.

A single application of 0.5 p.c. aconitine nitrate, or a rather freer application of a 0.25 p.c. solution is sufficient to destroy the irritability of the nerve, provided its diameter is small. With a large nerve like the sciatic, the penetration of the poison to the central fibres is imperfect.

The recovery of irritability of the nerve is very slow. To discover whether aconitine acts on peripheral nerve-cells more rapidly than on the nerve-fibres, by the method of injection is unfortunately out of the question, since the injection of 1 to 3 mgs. causes the heart to stop beating.

Cocaine hydrochlorate also rapidly reduces to zero the irritability of nerve-fibres, but unlike aconitine, its effect is very transient. By cautious application of cocaine the action can be repeated upon the same piece of nerve many times in succession. We have only made two experiments with regard to the effect of injecting cocaine into the blood; after 25 mgs. of cocaine hydrochlorate, the sympathetic still caused a dilation of the pupil and a constriction of the vessels of the ear, but the effect was less than normal.

Strychnine hydrochlorate has on local application a much greater paralyzing effect than brucine, and this is especially the case when it is applied to nerve-cells.

It is well-known that strychnine is a much more deadly poison than brucine, and it is said that in rabbits whilst the minimal lethal dose pro kilo. is 0.6 mgs. of strychnine, it is 23 mgs. of brucine. In view of this, and to the effect of local application, it is curious that, on injection, strychnine does not paralyze the pupillo-dilator nerve-cells of the superior cervical ganglion more readily than brucine. We find indeed that strychnine is rather less effective than brucine in producing this paralysis, for to this end 35 to 45 mgs. of strychnine hydrochlorate are required, whilst as we have seen 20 to 30 mgs. of

brucine nitrate are sufficient. On the other hand the vaso-motor nerve-cells of the superior cervical ganglion are more readily paralyzed by strychnine than by brucine; our experiments do not allow us to state with any certainty the amount of strychnine hydrochlorate required to paralyze these nerve-cells, but apparently about 60 mgs. will do so.

—Langley and Dickinson, *Journal of Physiology*.

PIROGOFF ON TREATMENT OF ERYSIPELAS.—Dr. I. K. Smigrodski, of St. Petersburg, communicates (*Vratch*, No. 49, 1890, p. 1126) a highly interesting therapeutical fragment, which has been found amongst unpublished papers, left by the late Nikolai Ivanovitch Pirogoff, the great Russian surgeon. The fragment contains a critical review of all the known plans of treatment of erysipelas, as well as an exposition of Pirogoff's own methods. A rational treatment of the disease, he says, must be both internal and local. Of all internal remedies, camphor is the most efficacious. During the first day, it should be given in half-grain doses, six times; afterwards, in one-grain doses, as frequently. In exceptional cases, two-grain doses may be required. At the same time, the diseased area should be kept covered with slices of common lard and a layer of cotton wool above them, the whole being fixed by means of some bandage. The lard slices should be changed twice daily. Another valuable local means consists in the application of a piece of linen (a linen mask in facial cases), thoroughly soaked in camphorated olive oil. In those rare cases where the administration of camphor does not appear to produce a beneficial impression on the course of the morbid process, it should be discontinued, and either calomel (six grains, one daily) or emetic tartar given instead. The former is especially indicated in the presence of a "blenorrhœal condition of the patient's tongue;" while the emetic must be resorted to in such cases where "the history points out that the patient has over-eaten himself about twenty-four hours previously to the development of erysipelas." Be calomel or emetic employed, some mild derivatives and enemata, made of chlorine water should be simultaneously ordered as adjuvants.

—*Provincial Med. Jour.*

NATURE AND TREATMENT OF CHOREA.—Finally, I think that in the majority of cases chorea is a rheumatic manifestation; but admit that there are other causes, as organic disease of the brain. This is shown by the autopsies of Guy's Hospital, where fourteen fatal cases were due to intercranial tumor. My own opinion is that it is always a manifestation of some other disease, as rheumatism or organic disease of the brain. From the following conclusions it is evident that in the majority of cases it is a rheumatic manifestation:

1. That rheumatism may precede, concur or follow an attack of chorea, which is the only disease which does so.
2. That they have a common lesion, namely, endocarditis, and sometimes pericarditis.
3. That in the majority of cases there is a rheumatic history.
4. That it is more frequent in girls than boys, which is also true of rheumatism.
5. That it seems to have the power of shifting from one side to the other, which is characteristic of the rheumatic poison.
6. That there is generally an emotional excitability in both diseases.

The medicinal treatment has improved of late years.

Sulphate of zinc has held its place for a long time, but has lately given way to arsenic, which is held by some writers to be a specific; but this is not true, as in a great many cases it fails.

The favorite preparation is Fowler's solution. It is given in small doses at first, from three to five minims, and then increased up to fifteen, or until the drug produces its toxic symptoms. Arsenic has been used very successfully hypodermically in choreic cases. Dr. Hammond says "that when you produce toxic symptoms by the stomach, to continue it hypodermically in increasing doses. In this way the toxic symptoms subside." He has given as high as thirty minims at the commencement, and increased it to fifty. He also says that it is liable to produce abscess if the following precautions are not observed. First remove the lavender and reduce the Fowler's solution to one-half, using glycerine as your diluent, as it is the least irritating. Also introduce the syringe where the skin is movable, as in the forearm. Iron has generally been given to improve the blood. Salicylates have, as a rule, failed.

Having advocated chorea as a rheumatic manifestation, it appears that anti-rheumatic treatment is not much good. During the treatment of my last case I was surprised with the rapidity with which the case was cured by a combination of a salicylate of soda and arsenic. The case had lasted for eleven months, and there was no improvement, although arsenic had been faithfully tried by two medical men. When the rheumatic attack occurred, and she was saturated by salicylate of soda, and when the salicylate was stopped and she was placed on arsenic in increasing doses, she recovered in four weeks' time.

—Brown, *Montreal Med. Jour.*

THE USE OF THE CHISEL INSTEAD OF THE TREPHINE IN THE SURGERY OF THE HEAD.—Dr. C. B. Keetley, reporting a case to the *Med. Press and Circular*, says: The trephine is an admirable instrument in its way; but it is emphatically the wrong one to use when the only objects to be attained are such as were indicated in the case given. The chief indications here were two, viz.:

1. To cleanse and asepticise the fissure in the skull.
2. To raise the depressed fragment.

The former alone frequently justifies, and even demands, the cutting away of one edge of the fissure. Without such a procedure, how can a contaminated fissure in the skull be possibly cleansed? What effect has washing the surface over a crack whose edges are always near and often jammed together with extreme tightness? And, obviously, the proper tool to use for the purpose is the chisel. I cannot easily understand how the trephine and Hey's saw came to be in exclusive use among surgeons in the treatment of depressed fracture of the skull. Perhaps it was because in old times such a vast proportion of bone surgery consisted of amputations that surgeons became almost exclusively accustomed to the saw. But osteotomy has introduced the modern surgeon to the chisel, and there is no longer any reason why it should not take the place in the surgery of the head, of which it has so long been deprived by the saw. Of course, the trephine is only a tubular, rotatory saw.

Mr. Tubby, who worked for some time with Volkmann, of Halle, tells me that that illustrious surgeon used to habitually trephine with the chisel and mallet. When a surgeon possesses sufficient skill with those instruments he can do almost anything with them, but it would be absurd to treat the trephine in the future with the original neglect which has fallen upon the

saw in the past: each has, of course, its proper place. When the object is to make a large hole in the skull cap, then, usually, the trephine is the proper tool, followed, if necessary, by cutting forceps, straight saw, gouge or chisel. But, in the vast majority of cases of depressed fracture, or of fractures which simply require cleansing and asepticising, the indication is to *avoid* making a large hole in the skull; and then the chisel is the proper instrument.

Is there any danger of damaging, by the vibration transmitted from the mallet, the contents of the skull? I think not, except perhaps in old people with very atheromatous arteries. In children and healthy young adults, I should say there would be absolutely none if the chisel were sharp, and the operator accustomed to its use. The chisel must be held firmly so that it cannot possibly slip, and the mallet must be used with judgment. Practice is of course necessary; and it need not be pointed out that the human skull, or, at least, the living one, is not the proper article to commence practice on.

INGROWING TOE NAIL.—The foot and toe were first cleansed and disinfected, an elastic ligature being thrown around the toe at its proximal end, and as near the metatarsal junction as possible. This was done for the purpose of isolating the circulation in the great toe. Local anæsthesia was then effected, by introducing the hypodermic needle of the cocaine syringe beneath the skin on the dorsum of the toe. Three or four drops of a four per cent. solution of cocaine were then forced out of the syringe into the tissues, and this manœuvre was continued to the right and left until about twenty minims of the drug had been injected. After the anæsthesia had been rendered complete at all points around the nail, the needle was then removed.

After the lapse of a few minutes, an incision was made from the middle and posterior margin of the nail directly backward for a distance of about half an inch. A second incision was made across the top of the toe, extending as low down as the most inferior portion of the nail on either side, and uniting with the perpendicular incision, thus giving the entire wound a T-shaped appearance. The two quadrangular flaps were now dissected up to the right and left and held apart by retractors. The nail was then slit from before backward in the median line, the incision extending through the matrix and as far back as the transverse cut through the skin. Both halves of the nail, together with the matrix, were then removed, the granulation tissue scraped out and the foot immersed in a basin of warm sublimate solution 1-2000. The elastic ligature was then removed and the wound allowed to bleed for a minute. In this way the excess of cocaine solution was washed away from the tissues. The ligature was again applied and the flaps brought into position. The space previously occupied by the horny part of the nail was packed with sublimate gauze, and the entire toe wrapped in the same dressing. A narrow bandage was applied around the toe, so as to hold the gauze in position and at the same time prevent bleeding. Over this a protective covering was placed, which was held in position by a second bandage.

The second bandage was carried up the toe to the point where the elastic band had been applied, which was then removed and the bandage continued up the foot. A single such dressing is usually sufficient and this need not be removed for ten days.

—Wyeth, *Internat. Jour. Surgery*.

Medical News and Miscellany.

PHENACETINE is said to be adulterated with acetanilide.

DR. WILE has presented quite a useful little journal in the first number of *The Prescription*.

THE College of Physicians and Surgeons of New York has become the Medical Department of Columbia College.

NEBRASKA is wrestling with a proposed Act establishing a State Board of Health; which, incidentally, is to have control of the registration of physicians.

THE St. Louis *Clinique* is now under the editorial management of Dr. William Porter. We wish him success; and no one who knows him will doubt that he will earn it.

THE New Orleans *Medical and Surgical Journal* publishes with its February number a huge chart, on which is delineated the pulse, temperature and respiration records of five tubercular cases treated with Koch's lymph.

PROFESSOR LAPLACE gave a lecture at the Medico-Chirurgical College, February 16, upon the Koch method, to a numerous audience. Among these were Mayor Fitler, Archbishop Ryan, Drs. Welch, Solis Cohen, Friebis, and many others. Dr. Laplace exhibited a number of patients upon whom the lymph had been used with gratifying results.

WEEKLY Report of Interments in Philadelphia, from February 7 to February 14, 1891:

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Abscess.....	2	3		Influenza.....	1	1	
Asthma.....	1			Inflammation brain.....	1	16	
Apoplexy.....	11			" bronchi.....	7	9	
Alcoholism.....	2			" bladder.....	2		
Bright's disease.....	5	2		" kidneys.....	4	1	
Burns and scalds.....	1			" larynx.....	1		
Cancer.....	12			" liver.....	1		
Casualties.....	7	1		" lungs.....	24	26	
Congestion of the brain.....	2	3		" heart.....	3		
" lungs.....	1			" peritoneum.....	6	2	
Cirrhosis of the liver.....	4			" pleura.....	1		
Consumption of the lungs.....	40	4		" s. & bowels.....	9	6	
Convulsions.....	14			Inanition.....	7	10	
Croup.....	7			Marasmus.....	7	14	
Cyanosis.....	4			Neuralgia of the heart.....	1		
Debility.....	4			Old age.....	17		
Diabetes.....	1			Paralysis.....	11	1	
Diarrhoea.....	2	1		Poisoning.....	1		
Diphtheria.....	13			Pyemia.....	2		
Disease of the brain.....	1			Sclerosis of spinal cord.....	1	1	
" heart.....	24	2		Septicæmia.....	1	1	
Drowned.....	2			Softening of the brain.....	1		
Dysentery.....	1			Suffocation.....	1		
Epilepsy.....	1			Teething.....	1		
Erysipelas.....	2			Tetanus.....	2		
Enlargement of the heart.....	2			Tumor.....	2	1	
Fatty degen. of the heart.....	1			Ulceration of the bowels.....	1		
Fever, scarlet.....	1	4		Uremia.....	1	2	
" typhoid.....	7	7		Whooping cough.....	1	2	
Gangrene.....	1						
Hemorrhage.....	3	1		Total.....	235	174	
Hernia.....	1						

OF THE ABOVE THERE WERE:

Under 1 year.....	84	From 50 to 60.....	37
From 1 to 2.....	25	" 60 to 70.....	34
" 2 to 5.....	33	" 70 to 80.....	35
" 5 to 10.....	14	" 80 to 90.....	20
" 10 to 15.....	9	" 90 to 100.....	4
" 15 to 20.....	9	" 100 to 110.....	—
" 20 to 30.....	42	Total.....	499
" 30 to 40.....	30		
" 40 to 50.....	33		

WITH "Kochism" raging everywhere, it was to be feared that caution, like physic, was too much in danger of being "thrown to the dogs." A hasty spell of excessive enthusiasm is suffering the inevita-

ble reaction, and already warning voices are raised in many quarters, and demanding the attention they would not have received a few weeks ago. Those who wisely stood on one side, deciding to watch the logic of events, have reason to congratulate themselves upon having escaped being drawn into the vortex of excited enthusiasm. It is more than probable that if some of the laudations first uttered had to be spoken and printed to-day the evidence of the judicial pruning-knife would be visible. It is far from our intention to put forward any adverse criticism of the method as originally propounded by its inventor—indeed, it is scientifically correct in theory without a doubt—but it is against the indiscriminate advocacy of the treatment to too credulous patients that we raise objections, several instances of which have come under our immediate notice; also we would point out that the resources of science in the fight against tuberculosis are not exhausted by the rise or fall of “Kochism,” and it is well to remember that, in laryngology at least, there are well-tryed intra-laryngeal methods of treating the local disorder which have been followed by as successful results as the now fashionable crase.—*Jour. Laryng. and Rhin.*

E PARVO MULTUM!

The Tragical and Lamentable fate of an Errant Bacillus Kochi: An Hysterico-Biographical, Laboratorious and Epical Episode done into Poetry of the Present Day.

BY KATISHA KATZENJAMMER,
Of the Bacteriological Institute, etc.
[Translated from the Japanese.]

A little spore in a culture grew,
Listen to my tale of woe!
Imbedded in a mass of glue,
Till a full-fledged bacillus it sprang into view.
Listen to my tale of woe!
Now, day by day its ambition grew;
Listen to my tale of woe!
Like the witch in Macbeth, who made the stew,
It said to itself, “I’ll do! I’ll do!”
Listen to my tale of woe!

CHORUS (at discretion).

It saw its chance in a day or two;
Listen to my tale of woe!
A draught of wind through the laboratory blew,
And out of a window the bacillus flew.
Listen to my tale of woe!
In a neighboring orchard a little peach grew;
Listen to my tale of woe!
The little bacillus came there too,
And Johnny Jones with his sister Sue.
Listen to my tale of woe!

CHORUS (at discretion).

Now, they ate the peach of emerald hue,
Listen to my tale of woe!
And swallowed the little bacillus too,
Which well in life its mission knew.
Listen to my tale of woe!
Now, the doctor was called to attend them two,
Listen to my tale of woe!
Who took from his pocket his microscope true,
And brought the bacillus into view.
Listen to my tale of woe!

CHORUS (at discretion).

He said, “Here’s the cause of this cry and hue,”
Listen to my tale of woe!
For the comma-bacillus well he knew;
And he stained it red and he stained it blue.
Listen to my tale of woe!
In Johnny’s corpse was a peach-stone or two,
Listen to my tale of woe!
In Susie’s abdomen a little glue;
“Ah! here is infection and zymosis too,
‘Tis sad to say; Boo-hoo! Boo-hoo!”
Listen to my tale of woe!

CHORUS (at discretion).

¹ Chanted at the meeting of the Flint Club, of Baltimore, January 7, 1891. The President, Dr. George H. Rohé, in the chair.

Now, all kind friends my advice to you,
Listen to my tale of woe!
Is when you are walking with a maiden true,
Avoid the peach of emerald hue;
Listen to my tale of woe!
And if, like Adam, you are tempted too,
Listen to my tale of woe!
Remember the fate of John and Sue,
Who ate the peach of emerald hue,
And the wicked bacillus that got stained blue.
Listen to my tale of woe!

CHORUS.

Hard trials for them two,
Johnny Jones and his sister Sue,
And the peach of emerald hue,
Also the comma-bacillus too.
Listen to my tale of woe!

THE Ohio Medical University is to consist of departments of medicine and surgery, dentistry, pharmacy and midwifery, and a training school for nurses.

The special feature of the new enterprise will be its method of teaching. Students will be arranged in three classes—freshman, middle and senior. Text-books will be adopted and lessons assigned and recited, as in an ordinary literary college. This is the method of instruction that has been urged upon the profession for several years, but this is the first school to adopt it. Other schools must fall into line, as the didactic lecture “must go.”

Students will be marked on their daily recitations, and advancement will be determined by this daily record, instead of by a single examination at the end of the year.

It is expected that the school year will consist of nine months.

The school expects to open, with ample hospital facilities, about October 1st, 1891.

—*Columbus Med. Jour.*

A VERY interesting course of evening lectures is being given at the Philadelphia Polyclinic; to which members of the medical profession are cordially invited. The next lectures are announced as follows:

February 20, Professor S. Solis-Cohen, “The Koch Treatment of Tuberculosis.”

February 24, Professor Samuel D. Risley, “The Cause of Myopia.”

February 27, Professor S. Solis-Cohen, “The Therapeutic Relations of the Nervous System.”

March 3, Professor Samuel D. Risley, “The Treatment of Myopia.”

March 6, Professor S. Solis-Cohen, “Neuro-medicaments.”

March 10, Professor Thomas G. Morton, “Club-foot.”

March 13, Professor John B. Deaver, “Endoscopy of the Urethra—Illustrated.”

March 17, Professor B. F. Baer, “Displacements of the Uterus.”

March 20, Professor J. Henry C. Simes, “Perverted Sexual Passion.”

TO CONTRIBUTORS AND CORRESPONDENTS:

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer’s name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy ^{AND} Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from January 23, to February 16, 1891.

By direction of the Secretary of War, the extension of leave of absence on account of sickness, granted Major Stevens G. Cowdrey, Surgeon, in Special Orders No. 302, December 27, 1890, from this office, is still further extended two months, on surgeon's certificate of disability. Par. 13, S. O. 19, A. G. O., Washington, D.C., January 23, 1891.

By direction of the Secretary of War, Major William H. Gardner, Surgeon, is relieved from further duty in the field, and will return to his proper station. Par. 2, S. O. 19, A. G. O., Washington, D.C., January 23, 1891.

By direction of the Secretary of War, Major Calvin DeWitt, Surgeon, is relieved from duty at Fort Hancock, Texas, and will report in person to the commanding officer, Fort Sam Houston, Texas, for duty at that station. Par. 1, S. O. 27, A. G. O., Washington, D.C., February 3, 1891.

The leave of absence for seven days granted to Captain William B. Davis, Assistant-Surgeon, U. S. Army, by Orders No. 2, Fort Preble, Maine, February 4, 1891, is hereby extended twenty-three days, with permission to apply to the Adjutant General of the Army for a further extension of one month. Par. 2, S. O. 22, Headquarters Division of the Atlantic, Governor's Island, N. Y., February 5, 1891.

By direction of the Secretary of War, Captain James C. Merrill, Assistant-Surgeon, is relieved from duty at Fort Reno, Oklahoma Territory, and will report in person at the earliest practicable date, to the Surgeon-General, U. S. Army, in this city, for duty in his office. Par. 5, S. O. 29, A. G. O., Washington, D.C., February 5, 1891.

By direction of the Secretary of War, Lieutenant-Colonel Charles C. Byrne, Surgeon, is relieved from duty at Fort Sam Houston, Texas, and will report in person to the commanding general, Department of the Columbia, for duty as Medical Director of that Department, relieving Colonel Bernard J. D. Irwin, Surgeon. Colonel Irwin, on being relieved by Lieutenant-Colonel Byrne, will proceed, via San Francisco, Cal., to St. Louis, Missouri, and report in person to the commanding general, Department of the Missouri, for duty as Medical Di-

rector of that Department, relieving Colonel Charles Page, Assistant-Surgeon-General. Colonel Page, on being relieved by Colonel Irwin, will report in person to the commanding general, Division of the Atlantic, for duty as Medical Director of that Division. Par. 6, S. O. 36, A. G. O., Washington, D.C., February 13, 1891.

By direction of the Secretary of War, Captain Louis M. Mans, Assistant-Surgeon, is relieved from further duty at Fort Stanton, New Mexico, and will report in person to the commanding officer, Whipple Barracks, Arizona, for duty at that station, relieving Captain Richard W. Johnson, Assistant-Surgeon. Captain Johnson, on being relieved by Captain Mans, Assistant-Surgeon, will report in person to the commanding officer, San Carlos, Arizona Territory, for duty at that station. Par. 7, S. O. 35, A. G. O., Washington, D.C., February 12, 1891.

Leave of absence for one month, to take effect on or about February 15, 1891, is granted Major William D. Walventon, Surgeon, U. S. Army. Par. 2, S. O. 15, Dept. Platte, Omaha, Nebraska, February 7, 1891.

Leave of absence for one month, to take effect on or about February 10, instant, is granted Assistant-Surgeon R. W. Johnson, U. S. Army. Par. 1, S. O. 16, Dept. Arizona, Los Angeles, Cal., February 4, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending February 14, 1891.

AUZAL, E. W., Passed Assistant-Surgeon. Detached from U. S. S. "Boston," and ordered to U. S. S. "Lancaster."

CRAIG, T. C., Passed Assistant-Surgeon. Detached from U. S. S. "Vesuvius," and ordered to U. S. S. "Boston."

BRAISTED, W. C., Assistant-Surgeon. Detached from Hospital, Hot Springs, and ordered to U. S. S. "Vesuvius."

FIRTS, H. B., Passed Assistant-Surgeon. Ordered to the Army and Navy Hospital, Hot Springs.

ARNOLD, W. F., Assistant-Surgeon. Ordered to the U. S. Receiving Ship "Vermont."

BLACKWOOD, N. J., Assistant-Surgeon. Detached from the U. S. S. "Vermont," and ordered to the "Newark."

ASHBRIDGE, RICHARD, Passed Assistant-Surgeon. Ordered to the Navy Yard, N. Y.

NORTH, J. H., Assistant-Surgeon. Detached from the Navy Yard, N. Y., and ordered to the U. S. S. "Lancaster."

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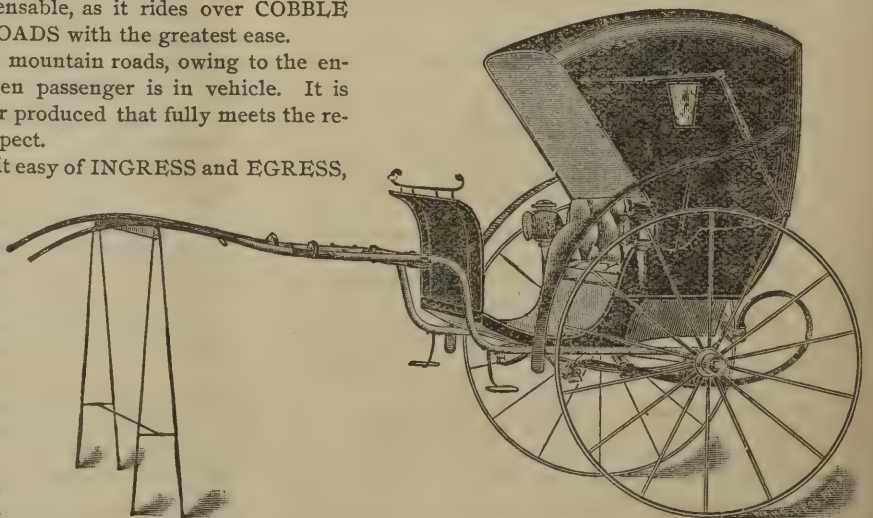
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The Times and Register.

Vol. XXII, No. 9. NEW YORK AND PHILADELPHIA, FEBRUARY 28, 1891. Whole No. 651.

ORIGINAL ARTICLES.	PAGE	LETTERS TO THE EDITOR.	PAGE	PAGE
REPORT OF SIXTY CASES OF UTERINE MYOMATA. By J. H. Kellogg, M.D., Battle Creek, Mich.	167	Patients vs. Ethics. Gates	176	Renal Calculi. Ste 179
CARE IN THE USE OF TUBERCLE BACILLUS AS A REMEDY IN TUBERCULOSIS. By Samuel G. Dixon, M.D.	172	Cincinnati Correspondence	176	Treatment of Oophoritis. Bell 179
SOCIETY NOTES.		BOOK NOTICES.		Terpene Iodide in Acute Diseases of the Lungs. Gregg 180
CHICAGO ACADEMY OF MEDICINE	172	Report on the Sewerage System, etc., of Some Foreign Cities. Keyser 177		Cystinuria. Smith 180
THE POLYCLINIC.		Auscultation and Percussion. Shattuck 177		Non-operative Treatment of Hemorrhoids. Thomas 180
JEFFERSON MEDICAL COLLEGE HOSPITAL:		A Compend on Gynecology. Morris 177		Cerebral Hemorrhage. Boston Med. and Surg. Jour. 181
Lumbricoides. Rex	174	Aertzlicher Almanach. Küllay 177		Inoculation of Dog Serum as a Remedy for Tuberculosis. Héricourt and Richet 181
Scabies. Stelwagon	174	PAMPHLETS	178	Bronchiectasis in Young Children. Carr 181
Erosion of the Os Uteri. Parvin	174	THE MEDICAL DIGEST.		Coffee. Love 182
Anæmia	174	FRENCH NOTES. Roussel	178	Bipolar Faradization. Rockwell 182
Spasm of the Larynx. Cohen	174	Cocaine in Obstetrics. Bousquet	178	Soporific Action of Mercury. Tyson 183
Chronic Bronchitis	174	Preparations of Saccharine. Bull. Méd. 178		Treatment of Hernia by Aspiration. Hern 183
Anæmic Amenorrhœa. Parvin	174	Salicylic Acid. Spenser	178	Treatment of Pneumonia. Fenwick 184
Chronic Ulcer. Keen	174	Remarkable Properties of Lanoline Soap 178		The Nitrites. Upshur 184
Phthisis	174	Barber's Palsy. Adie	178	Treatment of Malaria. Indian Med. Gaz. 185
EDITORIALS.		The Treatment of Malignant Tumors with Pyocetanin. Moselig	178	Treatment of Anæmia. Mackenzie 186
EUTHANASIA	175	Hydrastis vs. Phthisis. Palmer	178	MEDICAL NEWS AND MISCELLANY, 187
ANNOTATIONS.		Fistula in Ano. Med. Progress	179	ARMY, NAVY, AND MARINE HOSPITAL SERVICE 188
Consolidation of Colleges	175	Colitis. McMurtry	179	NOTES AND ITEMS -iv, xii
		Removal of the Gasserian Ganglion. Rose, 179		
		Tapping for Acute Synovitis. Owen	179	

Original Articles.

REPORT OF SIXTY CASES OF UTERINE MYOMATA,
TREATED BY ELECTROLYSIS, WITH DESCRIPTION OF
NEW FORMS OF ELECTRODES AND A
COULOMB METER.
By J. H. KELLOGG, M.D.,
BATTLE CREEK, MICH.
(Concluded from page 150.)

CASE XLII.—Mrs. M.; aged forty-five years; married; never pregnant. Had suffered from profuse and too frequent menstrual flow, with great pelvic pain, for several years. On examination, found an interstitial and subperitoneal fibroid reaching nearly to the umbilicus. Began the use of electrolysis in February, 1890; employed 75 to 125 milliamperes. The hemorrhages were controlled, but the tumor continued to grow, and the pelvic pain was greatly increased. After thirteen applications, the patient being evidently worse, I recommended removal of the appendages. Found double pyosalpinx. The patient returned to her home in a few weeks, enjoying better health than for many years. The tumor was diminished in size, flow had ceased, and the pelvic pain had almost wholly disappeared.

CASE XLIII.—Mrs. B., of Illinois; aged forty-four years; married; never pregnant. Menstrual flow somewhat too free, but regular; duration, five days; no pain. The patient became conscious of the presence of a growth of some sort seven years ago. Had consulted the leading gynecologists in this country and Europe. The tumor continued to grow in spite of all the treatment which had been administered. On examination, found a large multinodular, subperitoneal

myoma, extending to two inches above the umbilicus. Made nine applications, of from 100 to 200 milliamperes, 75 to 100 coulombs. The tumor continued to grow in spite of all the treatment, although it changed somewhat in form. The patient and her husband becoming discouraged, and demanding more radical measures, I removed the appendages. The patient made an uninterrupted recovery from the operation, and at the present date the tumor is about one-third its original size and the patient is enjoying excellent health, having menstruated but once since the operation.

CASE XLIV.—Mrs. B., of Indiana; aged forty-six years; married; two pregnancies. Severe pelvic pain during menstruation; flow profuse. Found small subperitoneal fibroid on the fundus uteri. The patient thinks the tumor has been present for ten years. Made nine applications of electrolysis, employing from 75 to 125 milliamperes, 40 to 50 coulombs. The flow was checked, uterus diminished in size, the pelvic pain relieved, and the patient's condition greatly improved.

CASE XLV.—Mrs. S., of Illinois; aged forty-six years; married; several pregnancies. Menstrual flow every three weeks, very profuse, accompanied by much pelvic pain. Found the uterus greatly enlarged, reaching to within two inches of the umbilicus, the enlargement chiefly in the right posterior aspect of the uterus, due to interstitial myoma. Also observed a subperitoneal nodule a little distance from the interstitial growth. Curetted the cavity of the uterus, and made fifteen applications of electrolysis, employing 125 to 150 milliamperes, 50 to 150 coulombs. The hemorrhage was stopped, the tumor diminished in size, the pelvic pain greatly relieved, and the patient's general health greatly improved. She returned for treatment a few months later, how-

ever, owing to a return of some of the symptoms. Found the uterus had increased somewhat in size. Again curetted the uterus and continued the electrolysis for a few weeks, with the result of controlling the hemorrhages, but made no appreciable change in the size of the tumor, although the patient's general health was greatly improved.

CASE XLVI.—Mrs. W., of Maine; aged fifty-two years; married; four pregnancies. Profuse menstrual flow and much pelvic pain. Uterus three times its normal size, from the development of an interstitial fibroid. Nine applications of electrolysis were made, with a current of 75 to 150 milliamperes, and 40 to 50 coulombs. The results were all that could be desired. The menstrual flow ceased, and the uterus diminished to nearly its normal size, although retaining the irregular form, resulting from the growth of the tumor.

CASE XLVII.—Mrs. Y., of Michigan; patient referred to by Dr. Fisher, of Augusta; aged thirty-nine years; married; had had two miscarriages. Patient had interstitial fibroid of the uterus. Made ten or twelve applications of electrolysis, of from 75 to 150 milliamperes. The profuse menstruation and pelvic pain were greatly lessened, and the patient's general health was improved. The tumor, however, was not diminished in size. The results in this case might have been more satisfactory if the patient could have remained at the sanitarium during treatment, as she had to travel ten or fifteen miles in a carriage after each treatment. Although there were no serious results apparent from the deviation from my general plan, which requires rest for twenty-four hours following treatment, I feel confident that the results were less satisfactory than they might otherwise have been.

CASE XLVIII.—Mrs. F., of Indiana; aged forty-five years; married; several pregnancies. Profuse menstrual flow for several years. On examination, found a large interstitial and subperitoneal tumor, reaching four or five inches above the umbilicus. Patient had been under the care of many physicians, and her case had finally been abandoned as hopeless. Was very pale and anæmic, and suffered grave attacks of pelvic inflammation. I attempted to employ electrolysis, but the patient did not bear the current well. Very mild applications gave rise to renewed attacks of pelvic peritonitis, in spite of every precaution. Despairing of success by other means, I recommended the removal of the uterine appendages. I found the appendages much diseased, bound fast by adhesions, and buried beneath the tumor, but succeeded in removing them. Both ovaries were cystic, cirrhotic, and contained hæmatoceles. The patient made an excellent recovery, and in a few weeks returned home improved, and with an excellent prospect of restoration to good health, the tumor diminished in sized. The tumor was chiefly subperitoneal in character.

CASE XLIX.—Mrs. S., of Michigan; aged forty-six years; widow; several pregnancies. Had suffered from profuse menstrual flow for several years. Found on examination a large myoma, reaching nearly to the umbilicus, subperitoneal and interstitial in character. Made seventeen applications, from 70 to 265 milliamperes, 60 to 100 coulombs. The profuse flow was checked, pain relieved, and the patient's general health improved, but the tumor did not diminish in size.

CASE L.—Mrs. B., of Dakota; aged twenty-nine years; married; never pregnant. Profuse and painful menstrual flow, with constant pelvic pain, for

several years. On examination, found fibroid thickening on the left wall of the fundus uteri. Made nine applications of from 30 to 100 milliamperes. Patient returned to her home with uterus nearly its normal size, menstruation regular, nearly painless, and general health greatly improved.

CASE LI.—Mrs. F., of Michigan; married; aged forty years; several pregnancies. First examination, June, 1890. Had suffered from profuse menstrual flow for several years. Found the uterus double its normal size, apparently from interstitial fibroid. Made eight applications of from 30 to 100 milliamperes, 60 coulombs. The profuse menstrual flow was controlled, and the uterus reduced to nearly its normal size. The patient returned to her home enjoying better health than for ten years previous.

CASE LII.—Miss L., of Ontario; aged thirty-four years. Suffered for several years from profuse and painful menstruation. On examination, found a small fibroid in the anterior wall of the uterus. Made several applications of from 25 to 50 milliamperes. Patient returned to her home greatly improved, uterus diminished in size, fibroid growth scarcely perceptible, and menstruation normal.

CASE LIII.—Mrs. A., of Michigan; aged thirty-eight years; married; never pregnant. Menstrual flow profuse and painful for a number of years. Patient reduced to a very feeble state, almost entirely bedridden. On examination, found uterus three times its normal size, the result of an interstitial and subperitoneal fibroid growth. Made eight applications of from 30 to 130 milliamperes, 40 to 60 coulombs. Patient returned home improved, hemorrhages controlled, uterus slightly diminished in size, less pelvic pain, and considerably improved in strength.

CASE LIV.—Mrs. W., of Michigan; aged twenty-six years; married; never pregnant. Suffered much pelvic pain for several years. Found uterus twice its normal size, the result of an interstitial fibroid growth. After six applications, of from 55 to 80 milliamperes, the patient returned to her home greatly improved, the uterus diminished in size, and pelvic pain relieved.

CASE LV.—Miss A., of Nova Scotia; aged forty years. Suffered much pelvic pain for several years. Found uterus double its normal size, caused by subperitoneal fibroid in the posterior wall. Made four applications of from 35 to 110 milliamperes, 30 to 60 coulombs. As a result, the uterus is diminished in size, menstruation not painful, and the patient is now in better health than for several years, and able to engage in ordinary household duties.

CASE LVI.—Mrs. Z., of Milwaukee; aged thirty-seven years; married; two pregnancies. Menstruation profuse and prolonged. On examination, found interstitial fibroid of posterior wall of the uterus increasing the organ to three times its normal size. Made four applications of from 45 to 150 milliamperes, 60 to 90 coulombs. Also curetted the cavity of the uterus, and repaired a laceration of the cervix. As a result, the uterus is diminished in size, the menstrual flow is normal, and the pelvic pain cured.

CASE LVII.—Miss H., of Michigan; aged about thirty-eight years. Profuse menstrual flow for several years; for several months almost constant. Made five applications of from 105 to 235 milliamperes. Flow diminished and general health improved, but no change in the size of the tumor, which was interstitial and subperitoneal in character, and of moderate size.

CASE LVIII.—Mrs. M., of Louisiana; aged thirty-

two years; married; several pregnancies. Profuse menstrual flow with great pelvic pain for several years. Found uterus twice its normal size, marked thickening on one side, indicating the presence of an interstitial myoma. Cured the cavity of the uterus, and made several applications of from 25 to 35 milliamperes, 15 to 30 coulombs. The hemorrhages ceased, and the uterus diminished to nearly its normal size.

CASE LIX.—Mrs. K., of Michigan; aged thirty-six years; married; several pregnancies. Almost constant hemorrhage for one year. Found uterus enlarged, filling the whole pelvis and reaching nearly to the umbilicus, by interstitial myoma. After six applications of from 100 to 140 milliamperes, the uterus was appreciably diminished in size, and the hemorrhage was controlled.

CASE LX.—Mrs. D., of Ohio; aged thirty-one years; married; never pregnant. Menstrual flow prolonged, profuse, and painful. Uterus double normal size. Subperitoneal and interstitial myoma on posterior wall. After half a dozen applications of from 60 to 100 milliamperes, and 30 to 60 coulombs, the patient's condition was very appreciably improved, the flow diminished, the uterus reduced in size, and the pelvic pain almost wholly relieved.

The above sixty cases may be divided into six classes, as regards results, as follows:

1. Cases which were made worse by the treatment, or were not much benefited, nine.
2. Cases which were cured, the tumor entirely disappearing, or being so much reduced in size as to be merely perceptible, fourteen.
3. Cases in which the tumor was considerably diminished in size, and all other symptoms relieved, the patient being restored to good health, seventeen.
4. Cases in which the size of the tumor was not materially changed, but the other symptoms controlled, and the patient made practically well, eleven.
5. Cases in which the tumor was not at all diminished in size, and the other symptoms but slightly ameliorated, five.
6. Cases which did not remain under treatment long enough to give the method a fair trial, four.

Of the nine persons who were not at all benefited, or were made worse by electrolysis, I removed the appendages in six cases, and performed the same operation in one of the five cases in which the benefit received from treatment was so slight that the patient was not willing to continue it. The result in all these cases was the rapid reduction of the tumor in size, the cessation of menstruation, and the restoration of the patient to good health, within a few months of the time of the operation.

There are some points of practical interest to be considered in connection with each of the first five classes of cases mentioned, especially with reference to the age of the patients and the character of the tumor as regards its relation to the uterine wall. The average age of the patients included in this report, excluding the four patients who were under treatment for a short time, was 39.5 years. I summarize the data furnished by my case-book upon these points, as follows:

1. Cases made worse or not benefited: Cases V, VII, IX, X, XI, XVI, XX, XXIII, XXXI, XXXV, XLIII, XLVII, XLVIII, LIII. The average age of the nine persons who were not benefited by the treatment was 37.7 years. The average age of the five patients who were only slightly benefited was 36.6 years. Almost without exception these patients were suffering from tumors which were both subperitoneal and interstitial in character. The tumors

were large and rapidly growing. The difficulty of dealing with rapidly growing tumors of the classes named, and especially in young persons, has long been recognized, and it is not surprising that less tangible results are secured by electrolysis in this class of cases than in the others. It will be noted that in some instances, as in Case XLIII, the tumor was modified in form, which I attribute to the influence of the current upon the interstitial portions of the growth. I have noticed this change of form in several instances, and in each instance the change has been such as to justify this theory.

2. Cases cured, the tumors disappearing: Cases XIV, XV, XVII, XXI, XXII, XXIV, XXVI, XXIX, XXXIV, XLI, XLVI, LI, LII, LVIII. The average age of the fourteen patients of this class was 37.9 years. In all of these cases the tumor was of the interstitial variety, and the tumors were small or of moderate size.

3. Cases in which the tumor was reduced in size and other symptoms relieved: Cases III, VI, XVIII, XXV, XXVII, XXVIII, XXXVII, XXXVIII, XXXIX, XLII, XLIV, L, LIV, LV, LVI, LIX, LX. The average age of the seventeen patients in this class was 40 years. Many of these tumors were very large, especially those of the interstitial variety.

4. Cases in which the size of the tumor was not diminished, but the other symptoms cured: Cases I, IV, VIII, XIII, XIX, XXX, XXXII, XXXIII, XLV, XLIX, LVII. Of the eleven patients included in this class, the average age was 43.3 years. Nearly all of the tumors of this class were of large size.

Of the fifty-six cases treated long enough to determine the value of the treatment, the growth was in thirty-two cases interstitial, in nine cases subperitoneal, and in fifteen cases subperitoneal and interstitial combined. The results in these several classes were as follows:

1. Of the thirty-two cases of interstitial growth, fourteen were cured; in nine, the tumor was diminished in size and the other symptoms cured; in six, the tumor was not diminished in size, but all the other symptoms were cured; and in three, the tumors were not diminished in size, although the patient was partially relieved of other symptoms.

2. In the nine cases of subperitoneal growth, the patient was either not at all benefited, or made worse in four cases; but slightly benefited in one case; relieved of other symptoms, although the tumor was not diminished in size, in two cases; and cured of other symptoms and tumor diminished in size in two cases.

3. In the fifteen cases of interstitial and subperitoneal growth, there was complete failure in five cases, slight benefit in one case, relief of symptoms without diminution in the size of the tumor in four cases, and relief of all symptoms with diminution in size of the tumor in five cases.

The following table expresses in a concise form the results obtained, the figures in the several columns, with the exception of the first, representing the percentage of the cases in which the results described at the head of the respective column were obtained (see table, page 170).

There has been much heated discussion of the comparative merits of the two methods of dealing with uterine myomata—the electrical method, developed chiefly by Dr. Apostoli, and the surgical method, employed by Tait, Hegar, Trenholm, Bantock, and until recently also by Kieth, as well as a large number of surgeons of lesser note. I am not a partisan of either method, but have endeavored to acquaint

myself with the merits of both by personal acquaintance with the work of the best operators and its results ; and, judging from what I have known of the results of others' work, and more particularly from the data gathered from my own work, which I have endeavored to record and compile with great care, I have reached the conclusion that neither method is the one to be universally adopted, but that each has its legitimate sphere in which it enjoys a superiority over any and all other methods. A study of the cases recorded in this report shows that a certain number were not benefited, but made worse by the employment of electrolysis, and that so many of

	Number of cases.	Per cent. of cases cured	Per cent. of cases in which symptoms were cured, tumor diminished in size.	Per cent. of cases in which symptoms were cured, and tumor not diminished in size.	Per cent. of cases slightly benefited, tumor not diminished in size.	Per cent. of cases not at all benefited, or made worse.
Interstitial	32	43.7	28.3	18.7	9.	
Subperitoneal.....	9		22.2	22.2	11.1	44.4
Subperitoneal and interstitial.....	15		33.3	26.6	6.6	33.3
Interstitial, excluding those cured.....	18		50.0	33.3	16.6	

these cases as were submitted to a surgical operation for the removal of the uterine appendages, were cured thereby. These cases constituted but a small proportion of the whole number treated—slightly less than 13 per cent.—which, I think, fairly represents about the proportion of cases which should be treated by the surgical method. A question of great practical interest in this connection is how to select the cases suitable for each method respectively. I believe the following to be a fair presentation of this question :

1. *Cases in Which Electrolysis Should be Employed.*—Electrolysis may be properly employed in a great majority of tumors of this class without any considerable jeopardy to the interests of the patient, and, as shown by the results which I have tabulated, with some degree of benefit in at least 84 per cent. of all the cases treated. In case operative measures become necessary, no harm is done, even if no good is accomplished, provided operation is not delayed after it is clearly evident that relief is not to be obtained by other means.

Small tumors are pretty sure to be benefited by electrolysis, irrespective of the situation of the growth. There is a prospect of complete cure in interstitial growths of small or moderate size by the electrical method, and an almost equally good prospect of cure is afforded by this method in cases in which the greater portion of the growth is interstitial in character, and its size moderate. In women approaching the change of life, the electrical method is especially indicated, as it has a marked effect in hastening the establishment of the menopause, the influence of which in obliterating growths of this kind is a matter of common observation.

2. *Cases in Which Surgical Means are Indicated.*—Surgical measures employed against uterine myoma are chiefly two: First, removal of the tumor itself, or of the entire uterus; second, the removal of the uterine appendages—the ovaries and the Fallopian tubes. The first method is a procedure usually at-

tended by much greater risk of life than the second, and one which is justified only by peculiar and extreme conditions. Consulting my statistics, I find that of the fourteen cases in which electrolysis failed to accomplish material results, all but three—or 78.7 per cent.—were under forty years of age, and 42.7 per cent. did not exceed thirty-five years in age. The tumors in these cases were all large, and growing rapidly. The fact that these cases did not yield to the application of electrolysis, even after protracted effort, taken in connection with the remoteness of the time for the natural establishment of the menopause, and the additional fact that the menopause is in these cases often very considerably postponed, seem to me to amply justify the resort to surgical means as the only proper course to be pursued. On the other hand, the same indication for operation is present in cases in which the patient is long past the time for the proper occurrence of the menopause, the change being prevented by the presence of a large and rapidly-growing myomatous growth. The tendency of these growths to assume a malignant character in advanced age, must not be forgotten, and is certainly a weighty argument in favor of the employment of radical means for their extinction in the most prompt and thorough manner possible, when life is seriously threatened by them.

I have become thoroughly satisfied, from my personal experience in dealing with these tumors, *that growths which are subperitoneal in character are much less amenable to the influence of the electrical current than those which are interstitial or submucous.* A subperitoneal growth attached to the uterus by a narrow pedicle is out of the sphere of the electrical current, or, at any rate, of any current which can be applied in a safe manner. In watching the effects of the application of the current in the cases which I have treated, I have become strongly inclined to the opinion that the effect of the current upon the development of the tumor is accomplished through the destruction and plugging up of blood-vessels in the vicinity of the intra-uterine electrode, whereby the nutritive supply of the tumor is in part cut off, thus leading, in favorable cases, to its gradual starvation. I have frequently noticed, in cases subjected to electrolysis, a slight inflammatory reaction in which the symptoms of phlebitis in the tumor sometimes extended to adjacent parts. A marked instance of this I have recorded in Case III, in which there was a very decided and rapid decrease in the size of the tumor immediately subsequent to the attack of phlebitis provoked by the electrolysis. If this be the proper explanation of the influence of electrolysis upon these growths, it is evident that less can be effected by this means in cases in which there is present a large, pedunculated mass, springing from the outer portion of the uterine wall.

In these cases, removal of the appendages by which the influence of the ovaries and tubes is gotten rid of, and by means of which, also, the blood supply of the uterus is diminished, is the only measure likely to exert a marked influence on the development of the tumor, unless the entire growth be removed, an operation which, under proper circumstances, is entirely justifiable. In a case which came under my observation some months ago, the entire uterus had been brought into the condition of a pedunculated mass, by supravaginal stretching of the cervix, which formed a pedicle not thicker than the thumb. The patient was sixty-three years of age—fifteen years past the menopause. The growth had made its appearance some seven years previously, and had, within a few months, been

making active development. At the time the patient came under my care, the uterus was fully the size of a gravid uterus at full term. The cervix, as felt by vaginal touch, was scarcely larger than a filbert, and the cervical canal was wholly obliterated. Careful bi-manual examination did not enable me to determine certainly any connection between the large mass which filled the abdominal cavity and the cervix. I began the operation, not knowing whether I should find an uterine or an ovarian tumor, as the mass had an elastic feeling, not unlike that of a tense ovarian cyst. I found the uterus enormously and symmetrically enlarged by a soft cedematous myoma. There was not the slightest adhesion anywhere, and the operation of removal by supra-vaginal hysterectomy was the simplest matter imaginable. The wound healed throughout its entire extent by immediate union, and the patient recovered without a single grave symptom. The tumor measured thirty inches in circumference. The treatment of this case by electrolysis, either by means of the intra-uterine electrode or electro-puncture, would have been either impossible, or in the highest degree hazardous. Any attempt at electro-puncture would certainly have resulted in opening the peritoneal cavity, and possibly involved the puncture of an intestine; while an attempt to bore through the long, slender cervix would probably have been equally disastrous. It seems to me that a case of this sort is certainly one in which a surgical operation is not only proper, but the only proper procedure to be undertaken.

It may be said, then, that large subperitoneal growths, or growths in which the subperitoneal character predominates, should be submitted to operation, if electrolysis cannot safely be employed, or if it has been tried for a reasonable time without good results, it being provided, of course, that the case in hand is one in which the symptoms are sufficiently serious to warrant the comparatively small hazard involved in a laparotomy performed by a skilful operator under favorable conditions.

A consideration which should not be overlooked in this connection, is the fact that in most, if not all, cases of myomatous growths of the uterus, the ovaries, and often the other appendages of the uterus, are more or less diseased. Indeed, there is much ground for the supposition that the morbid growth of the uterus has its origin in some morbid influence exerted upon the organ by diseased ovaries. Not infrequently, also, the disease of the ovaries is of such character that the patient suffers far more from pain in the ovaries and other adnexa than in the tumor itself. In these cases are we likely to secure any great or permanent benefit from the employment of electrolysis? Indeed, is there not a possibility that through the irritation set up by repeated cauterization of the lining membrane of the uterus, we may aggravate both the suffering and the morbid activity of the diseased appendages? I have met a number of cases in which I was positive that this effect followed the most careful and judicious employment of the electric current. These cases seem to me to be suitable ones for surgical interference, and I do not hesitate to recommend, in cases of this sort, the removal of the appendages, which in the great majority of cases of hard myomata of the uterus, will effect a radical cure by artificially inducing the menopause, and thus leading to the rapid shrinking and ultimate disappearance of the tumor, or at any rate of complete cessation of its mischievous activity.

Dr. Apostoli reports success in the treatment of pyosalpinx by electrolysis, and no doubt symptomatic

cures may sometimes be effected in this way. I understand the principal claim made for electrolysis in the treatment of this class of cases is that it is a safe method of puncturing the distended tube. I have never employed this method, but have for several years employed the galvano-cautery as the means of opening pelvic abscesses which could be safely approached from the vaginal surface. Dr. Apostoli's success in the treatment of pyosalpinx by electrolysis, and the great value of his method in the treatment of uterine fibromata, certainly entitles his experience and claims to high consideration, and I shall watch with interest the future development of this method of managing pyosalpinx. It must occur, however, to one who has had much experience in the removal of diseased appendages, that cases now and then are met with in which the distended tube has not attached itself to the peritoneum, so that it cannot be readily reached by electrolysis, which would result in perforation of the peritoneal cavity, unless a sufficient amount of inflammation were set up by the treatment to cause adhesion before penetration occurred. Certainly this method is one which would require the highest degree of diagnostic skill on the part of the physician, and the greatest exercise of judgment and discrimination.

I have more than once seriously debated in my mind the question whether removal of the appendages is not the preferable method, in some cases, in which a practical cure might be effected by the employment of electrolysis, provided the application could be continued for a sufficient length of time, but in which the patient cannot remain under treatment long enough to afford an opportunity for successful treatment. Certainly, in cases of this sort, the patient should be given an opportunity to decide for herself which method of treatment she will employ. The risk of an operation for the removal of the appendages is, in an uncomplicated case, certainly not great. In the hands of a skilful operator, and under favorable conditions, the patient is not subjected to a mortality risk of more than two per cent. I have never yet lost a case of this sort, and within the last year have made a record of fifty-two cases of ovariectomy, including three of hysterectomy, and a number of cases of this sort, without a single death. It must be considered also that the application of electrolysis is itself not wholly free from risk. Several deaths are known to have been produced by this mode of treatment, perhaps in some cases by its injudicious application. When one considers the far greater magnitude of the operation for the removal of the appendages by abdominal section when compared with electrolysis with the intra uterine method, one is impressed with the thought that the electrical method cannot be wholly free from risk since several deaths have occurred as the result of electrolysis, while the mortality of ovariectomy in the hands of skilful specialists is very small. Great mischief has already arisen, and still greater mischief will very likely arise, as the result of the propagation of the idea that electrolysis is a perfectly safe method. Certain it is that safety in the employment of electrolysis is to be secured, as in ovariectomy, only by the most thorough employment of asepsis, and by the exercise of great wisdom and sound judgment on the part of the operator, and skill in diagnosis.

The Medical Mirror for February contains a portrait of Dr. Henry H. Mudd, Dean of the St. Louis Medical College.

CARE IN THE USE OF TUBERCLE BACILLUS AS A REMEDY IN TUBERCULOSIS.

By SAMUEL G. DIXON, M.D.,

Professor of Bacteriology, etc., Academy of Natural Sciences.

AFTER a careful study of the action of the toxic substance found in the tubercle bacillus, upon the human economy already the victim of tuberculosis, I venture to cite a few facts regarding the same.

The first case is that of a man who presented himself at a hospital for treatment; without fever; with small whitish nodules scattered over the pharynx; slight cough, and dullness over the right apex; tubercle bacilli in sputum. Injection of the new remedy produced an ulceration of the entire pharynx and a sloughing of the same, tubercle bacilli being found in the slough. After treatment for six weeks the patient lost over twelve pounds in weight. The dose was increased to 100 milligrammes. He died the day following the 100-milligramme injection, of acute miliary tuberculosis of the intestines, heart, liver, kidneys, pleuræ, omentum, etc. The history of this case points strongly to the probability that the acute miliary tuberculosis developed during the treatment of the case, owing to the fact that the patient did not develop an abnormal temperature before the injection of the remedy.

From this and many other cases, I feel quite well satisfied that, if by treatment with the new remedy, we set up an extensive ulceration that perforates any of the vascular membranes, we must expect a general tubercular infection.

Another case of death caused by the treatment was by perforation of the tubercular ulceration through the walls of the intestine.

Just here I beg to call attention to the fact that tuberculosis of the œsophagus, stomach, and intestine are very liable to acute exacerbation under the action of this organic remedy.

Another unfavorable case worthy of mention occurred quite recently under Fraenkel. He had a case of tubercular phthisis, with consolidation and without cavities, that in the course of treatment developed by metastasis, tuberculosis of the tongue. I may also mention a case of a child with knee-joint disease, that developed by metastasis during treatment, seven solitary tubercles in the brain, each one at least one-fourth of a centimeter in diameter.

At present, I regret to say that I fear our remedy, as generally prepared from the tubercle bacillus, is as much more valuable as a prophylactic than as a curative agent, yet I have not by any means given up all hope of its having remedial power. Its diagnostic power, shown by experimentation on the human economy, has fully corroborated my experience with it on animals, yet I am not ready to affirm that it does not react also on other pathological conditions, while its action on tuberculous man does not fully corroborate my results obtained in animals with artificially produced tuberculosis. I cannot but indulge myself with the expectation that the time may be approaching when we shall be able, not merely to destroy tuberculous tissue, but the micro-organism that we find so intimately associated with tuberculosis.

In the meantime, if to be used in the human economy, I would recommend the most careful administration of the new toxic agent, and even with the most favorable cases, that the initial dose does not exceed one-half a milligramme, and should the tissue not manifest a tendency to extensive ulceration, as will be shown by a lower or slightly higher degree of fever on the days intervening between the injections,

the treatment may be cautiously proceeded with. If a decidedly higher temperature is manifested on the intervening days, the welfare of our patient certainly demands a discontinuance of the treatment. This, however, need not of necessity bar a physician, who has seen fit to use the remedy, from making another attempt, providing the patient presents more favorable conditions, particularly as there are a few cases reported as being much benefited by the remedy.

In some of Prof. Gerhardt's cases the catarrhal condition of the apices has been reduced, while the dullness is gradually decreasing; while Prof. Koch has a few cases at the Moabit in which bacilli have remained absent for some months.

As I have never felt sufficient confidence in the toxic effects produced by subcutaneous injections of devitalized tubercle bacilli, upon the animal economy suffering with tuberculosis, to risk its use in man, I have, as stated in former communications for some time past, been using a long line of other agents, and I believe that it is only right and proper for me to again call attention of all workers in bacteriological investigation to what I have before strongly hinted at, when alluding to the effects of food, light, temperature, etc., upon the growth of the tubercle bacillus on an artificial culture pabulum.

Glycerine is one of the substances that I have employed in excess since 1889, as specially mentioned in previous articles, and with a marked effect on the growth of the tubercle bacillus.

After satisfying myself that I had pretty clearly established the effect of an excess of glycerine in the nutritive agar-agar glycerine medium upon the growth of the organisms, I proceeded to introduce large doses subcutaneously into the animal economy where a tuberculous process was going on.

In the few cases thus treated, there has, to all appearances, been produced a marked change in the tuberculous process in the animals, therefore to facilitate matters, I hasten to place before my colleagues the suggestion indicated as above, and I should be very glad if they would themselves try its action in the animal economy, and report their observations.

Society Notes.

CHICAGO ACADEMY OF MEDICINE.

THE paper by Dr. Frank S. Billings, entitled "Original Research in its Relation to Natural Economies," published in the January 24, 1891, number of this journal, was followed by a discussion of the fellows of the Chicago Academy of Medicine, October 31, 1890; a portion of which discussion is given below:

DR. CLEVENGER said that with the innumerable discouragements which Dr. Billings had experienced in his encounter with "official scientists," it was astonishing that he was willing, even temporarily, to entrust the management of a heavily endowed institution, such as he suggested, to the care of the swarm of ignorant office seekers who, beyond all doubt, would secure its control.

Fellows of the Academy, said Dr. Clevenger, are familiar with my views on these subjects, and may even consider me a little cranky in the matter, but let me assure you that I have most excellent reasons for such morbidity. I have become justly envenomed against the political methods of our country, because wheresoever I have turned the "spoils system" has proven to be the stone wall erected against the progress of science of every conceivable kind.

In my younger days I was a civil engineer, and in everything that pertained to practical geodesy, astronomy, meteorology, etc., I was an enthusiastic student. My first book was a "Treatise on Government Surveying," which I am justifiably proud in claiming to be still a standard work; but I left the United States Survey Department because, from the Secretary of the Interior down to the Surveyor General it was the rarest thing to meet with one official who had a rudimentary mathematical knowledge; all was boodle and percentages, sometimes higher than half the government appropriations, wrenched from those who were competent to do the surveying. During one winter's investigation in Washington, I found that this robbery of scientists was simply universal. Old Admiral Davis, of the United States Naval Observatory, was almost broken hearted over the inability to penetrate the average Congressman's brain with an idea that astronomy had the remotest connection with our maritime interests, and at one time Congress actually cut off the appropriation for the expense of comparing chronometers, because there was "nothing in it" for them, ignorant or indifferent to the multitude of wrecks of shipping that could have followed.

The Coast Survey was harassed by Senatorial backing of abject idiots who simply wanted the salaries that required cadetship and profound astronomical knowledge to earn; the Geological Surveys were fighting one another and trying to spend an hour or so a week in legitimate work, because the rest of the time was taken up in pulling for or against political pressure. The Hydrographic office, the Smithsonian Institute, the Agricultural Department, and especially the Department of the Interior, with its possibilities of manipulating Indian affairs, were similarly ideally rotten.

I entered the United States Signal Service as civilian meteorologist, and was stationed at Fort Sully. This service is under the control of the War Department, and hence is largely free, at present, from having been debased by politicians, but the foul claws of the latter are reaching for that scientific bureau, and when it passes to the control of the Agricultural Department as anticipated, competency will no longer be requisite. It should be enough to change the climate of America to the favorite one of the Calvinists.

Army surgeons induced me to study medicine, and I shall always be grateful to them for having helped to build for me a foundation for my after studies that has required no overhauling or repairs, owing to their thoroughness and devotion to their profession. Notwithstanding the fact that army surgeons, through circumstances in their environment, are not encouraged to do much writing or special investigation, those whom I have met were good, earnest students, and in very many respects were ideal physicians. Little did I expect that by any possibility politics could be mixed, or interfere with medicine, until appointed pathologist of the Chicago Insane Asylum, when, to my amazement, I found saloon and gambling-house keepers prowling about the institution in every official position, robbing, freezing, starving and beating the insane, and entertaining the bitterest hatred for any medical man who protested against their brutality. And the daily press of the country not only refused to print accounts of these atrocities but would misrepresent any one who appealed to them to do so. And why? Simply because there was "boodle in it" for them, and no organized effort against politicians could be secured or made "to pay any one" even if instituted. One party was not a whit better in this

respect than another, and some of these officials, to keep on the winning side, changed politics five times in ten years.

I think I understand Dr. Billings' idea in regard to the suggested institution for research, and no one on earth would be more competent to head such a place than he, but, alas, swarms of pismire politicians would eat him and his laboratories up, and then revile his memory because he fought them. If the intelligence of the country can be educated up to any kind of a conception of the value of the plan the doctor proposes, sufficiently so to be able to protect the scientific workers against the entrance of pseudo-scientists, who would be most likely to succeed in obtaining political influence for place, then by all means let us have the measure carried out; but there is no hope, at present, of such a thing, and in this hopelessness we have a justification for the perpetration of Sam Waller's remark that "the public is a hass."

DR. G. FRANK LYDSTON: It is a matter of common experience that whenever an individual who apparently has all the attributes essential to success, is unsuccessful, and bewails his unfortunate lot, the explanation of the failure lies very near the door of the individual himself. So it is with scientists, and especially with scientific medical men.

The reason why some of the evils that have been touched upon in Dr. Billings' paper, and in the discussions thereon, exist, is very plain. The scientist very rarely takes a prominent part in politics; he is so absorbed in personal interests of a scientific character that he very rarely indeed takes time to study the philosophy of politics, much less to practically engage therein. He is satisfied to let the government roll along as it pleases, provided he is not interfered with. When, however, he is interfered with, or when he sees obstacles placed in the way of scientific progress, or even when the government refuses to lend a willing ear to measures for the advancement of science, he immediately begins to find fault with the government, and to attribute the lack of encouragement of science to rotten politics. His own neglect is really responsible in great measure for the corrupt condition of politics which he deplores. One reason why original research is so warmly encouraged in Europe, as contrasted with the United States, is, that in the legislative bodies of European countries, scientific men are numerous and prominent. In France scientists are encouraged not only by the support of the people, but by the government at large, simply because many scientists are elected by the people to positions in the legislative body, and science, therefore, has much to say in the formation of laws; and we would naturally expect some benefit to accrue therefrom for scientific men.

In the German Reichstag there are many scientists, as is well known, who are accorded respect and political support in the various localities which they represent. Prof. Virchow is well known politically, and it cannot be said that his political prominence has ever been detrimental to his success as a scientist. It is possible that much of his professional and scientific success has been dependent upon his political importance.

It is a common experience that the people respect the doctor in direct proportion to his importance as a commercial factor in the community. In the same way the scientific man is accorded the respect of individuals in direct proportion to his importance as a political factor. The doctor, of all other men, has the confidence and respect of a large proportion of

the community. It certainly should not be derogatory to his professional self respect or social standing for him to do what he can in moulding the political ideas of those with whom he comes in contact. If the better class of professional men would take interest in political matters, and would encourage scientific men to take public positions, the scientific millenium would not, perhaps, be very far off. At present, however, the slightest attempt on the part of the physician to dabble in politics, either practically or theoretically, is attributed to some ulterior motive. I have had some experience in this respect. As soon as the scientist assumes a position of political importance, he will get somewhere near what he calls for. At the present time, however, the quack and quasi-scientific mountebank is of more importance, politically and commercially, in the community, than is the man of pure scientific propensities.

When we, as physicians, assume our proper position in the community from a political, social, and commercial standpoint, we will be enabled to influence the Rockefeller, and other capitalists, in the direction of endowments for scientific institutions. It is to be hoped that some of the money which is now being so recklessly expended in the direction of religious institutions, will one day be diverted to scientific purposes.

Dr. Clevenger's remarks regarding the army surgeon are slightly incorrect. Their failure to progress scientifically, and to contribute to our scientific knowledge, is not due to lack of encouragement or jealousy, but is due to other factors, viz.:

1. To lack of clinical material upon which to practice those principles and precepts that have been inculcated by our colleges.

2. To overcrowding, there being a marked superfluity of army surgeons. The army could get along very nicely with a third as many surgeons as it has at present.

3. The innate laziness of a large proportion of men who occupy government positions.

These men apply for admission to the army with but one idea, that is, to pass the first examination—by the skin of their teeth, if need be. Having entered the army, their sole ambition is to be able to pass a second examination after the expiration of five years, after which they anticipate the peace and quiet of absolute indolence. These factors, taken in connection with certain peculiarities of environment, are enough to explain the scientific apathy of the average army surgeon. I say this with a due realization of the fact that there are in the United States army at the present day very capable and scientific men, some of whom I number among my personal friends.

In order to demonstrate the economic value of original research, the scientist must impress upon the public the actual commercial value of said research. It would be well to remind the public occasionally of the actual monetary valuation of such scientific feats as preventive inoculation. This can readily be illustrated in the case of small-pox. It can also be illustrated by the experiments of Pasteur in the prevention of the silk-work disease, chicken-cholera, anthrax, etc.

Nothing appeals to the public so strongly as that which affects their pockets, and we must lay scientific technicalities aside and endeavor to convince the public at large that there are immense financial questions involved in the matter of original research.

The Polyclinic.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

IN a case of *lumbricoides*, Dr. Rex gave the following prescription:

R.—Ext. spigeliæ fl.,
Ext. sennæ, fl. ʒʒss.
Syr. sarsaparillæ..... fʒj.

M.—S. Four times a day.

And for the digestive disorder with which the patient was troubled:

R.—Pepsini gr. xxx.
Acid. muriatic dilu..... fʒij.
Glycerini.
Aque..... q. s. ad fʒij.

M.—S. A teaspoonful three times a day, after meals.

Dr. Stelwagon, in a case of *scabies*, recommended the following plan of treatment. After the parts have been thoroughly washed and cleansed, the following ointment was to be applied:

R.—Sulphuris sublimat..... fʒij.
Balsam Peruviani..... fʒiss.
Adipis..... fʒss-j.

Sig. Apply by rubbing in thoroughly.

For a case of erosion of the os uteri, Prof. Parvin advised the use of hot douches, and the application of a solution of iodine and glycerine to the eroded surface.

For a case presenting at the clinic, with marked *anæmia*, he was advised to live upon a meat diet principally; the bowels to be kept in a soluble condition, and the internal administration of the following prescription:

R.—Liq. arsenici chloridi..... gtt. iij.
Tinct. ferri chloridi..... gtt. xx.
Syr. limonis..... fʒj.
Aque..... q. s. ad fʒj.

M.—S. Three times daily, freely diluted.

Dr. Cohen, in a case of spasm of the larynx, due to a reflex trouble from disease of the nasal septum, made application of the electric cautery to the swelling on the septum.

The following prescription was given in a case of *chronic bronchitis*:

R.—Ammonii iodidi..... fʒij.
Vini ipecacuanhæ..... fʒij.
Syr. tolu..... fʒj.
Aque..... q. s. ad fʒij.

M.—S. A teaspoonful every three or four hours.

Prof. Parvin directed in a case of *anæmic amenorrhœa* that the patient take cod-liver oil and syrup of the iodide of iron, a teaspoonful three times a day, and the application of the galvanic battery to the uterus.

Prof. Keen, in a recent clinic, presented a case of chronic ulcer, the method of treatment consisting in skin-grafting. The surface of the ulcer was thoroughly scraped, and cleansed with an antiseptic solution; a sufficient number of long, thin strips of skin were cut from the surface of the thigh and placed on the surface of the ulcer, and the usual antiseptic dressings applied.

In a case of *phthisis* the following prescription was prescribed:

R.—Liq. potassii arsenitis..... fʒij.
Tr. nucis vomicæ..... fʒss.
Tr. cinchonæ comp..... fʒij.
Elix. simplicis..... q. s. ad fʒiv.

M.—S. A teaspoonful three times a day.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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EUTHANASIA.

THE editorial last week upon sudden death has evoked a reply, in which the writer takes the ground that sudden death is not always and necessarily an evil to be deplored. Death in itself is not so appalling as the expectation of it; and there are many who so dread the anticipation of dissolution that their prayer is rather for a sudden and unexpected ending of life. Apart from these instances of the utmost moral cowardice, there are those in which euthanasia is desired. This must not be confounded with suicide, as it does not necessarily imply the latter. Euthanasia is rather the shortening and rendering less painful the final struggle. When death is inevitable and imminent, when consciousness means agony, the prayer is that of Adrian:

"Cease, fond nature, cease thy strife,
And let me languish into life;"

assuming that the reference is to the life eternal.

While there is much in the medical art that is indeterminate, there are still many cases in which the prognosis stands so clearly written that even the unskilled eye can interpret. In the latter stages of cancer, of phthisis, of cardiac deficiency, of diabetes, the verdict is as immutable as the laws of the Medes and Persians. The possibility of recovery stands on a par with Rabelais' assertion that Gargantua was born from his mother's ear, because all things—this included—were possible with a Supreme Being. When death is then imminent, under such circumstances, there is yet a difference in the way in which it is regarded by the interested individual. It seems as if no amount of suffering can extinguish the love of life or the terror of death in some persons. Every day, hour, minute, of life is treasured. With almost the last gasp they beg us to insure them a little more life, a few hours more suffering.

But with many others, the intensity of suffering finally breaks down the desire of living, and the sufferer ardently longs for his release. Why, then,

should this desire not be granted? What possible object is to be gained by the continuance of life? The individual realizes his approaching fate, and has made such preparation as his sufferings will permit. To prolong such a life is but heartless cruelty; and the creed that would refuse the boon of euthanasia is as antiquated as that which withholds the anesthetic from the parturient woman on so-called "religious" grounds.

Plato tells of a man who, having an incurable disease, devoted himself exclusively to the task of prolonging his life, and succeeded in reaching old age. But, as this was his sole occupation, the philosopher concluded that it would have been better for him to have made no such effort, but rather suffer an unproductive life to come to an end. This, however, does not seem to be necessarily true. While men have duties to the State, they are something more than citizens. Life is an individual possession, and its valuation lies with the man and not with the community of which he is a member. To him, life was of a value sufficient to make it desirable; and as long as he desired to retain it the State could not gainsay his right upon the grounds of public economy. It is too much to ask of any man that he should die from motives of economy. The same reasoning would lead to the destruction of aged and helpless individuals; of surplus members of any trade—in other words, to the development of a callous selfishness the like of which no civilized nation has seen since the days of Lycurgus. It is doubtful if the materialism that is said to prevail to-day will ever reach the Spartan level.

In the case of hopeless insanity, euthanasia has been suggested; but as here, also, the motive is economy rather than mercy, and the desire for death is from the community—or at least the relatives—rather than from the individual, it should be disallowed. Besides, the records show that even in hospitals for the incurable, chronic insane patients occasionally recover; so that there is here not that absolute hopelessness that alone excuses the hastening of death.

Annotations.

THE *Cincinnati Lancet Clinic* suggests that the Ohio Legislature should unite the three State Colleges at Athens, Oxford and Columbus in one strong University; that the medical colleges in Cincinnati, Cleveland and Columbus should be united to form one great school for each city; and that no more charters be granted to educational institutions.

Wise suggestions, provided there is any way to combat the tendency of these schools to fall into the hands of cliques, and thus prevent the best men having any opportunity. It is this that has stimulated the multiplication of colleges.

AMONG the new societies started at the University of Pennsylvania this week, is one that has for its object the examination of the brains of distinguished decedents. The operations of the society will be limited to persons holding diplomas from the University.

Letters to the Editor.

PATIENTS VS. ETHICS.

I HOPE I shall be pardoned for taking issue on an ethical point with one so prominent in medical thought and literature that his reputation is international, but I have a few words to say concerning the remarks on patents made by Prof. Shoemaker, in his article on "The Prostatic Electrolyzer," which appeared in THE TIMES AND REGISTER of January 17.

The Hippocratic oath rests serenely in the literary museum, and a powerful effort is being made in some directions to place the code of ethics of the American Medical Association by its side, but it is well to think carefully before discarding that which, although not entirely satisfactory, has proven worthy of, and occupied a prominent place in medical organization, and which still deserves respect. Now, more than at any previous time, is there need of *esprit-de-corps* and an elevated and well-understood code of ethics among medical men.

The low standard of general and professional education which obtains in many medical schools has flooded the country with diplomas, and placed in the ranks of regular medicine men whose only use for a diploma is to comply with lax legal requirements and live out of jail. The quack, and often unfortunately the scientific quack, flourishes like a forest of bay, and appears in many forms.

The traveling M.D., agent for pharmacist and publisher; the editor of a medical journal for advertisements only; the hired exponent of proprietary remedies; the professional chemist who certifies to the purity of soap and baking powder from carefully selected samples; the "regular" who has a friend on the daily papers; the shrewd scribe who gets his neatly covered advertisement in the heart of our highest grade journals; and even the "professional expert," who gives biased testimony before our law courts, are all familiar, to say nothing of the horde of which the "late of Bellevue Hospital" class is least harmful.

The elevated moral and ethical standard of the medical profession in the past has won the esteem of the public, and has stimulated young men entering the field of medical work to strive to deserve that esteem; in the present, when the degree has come to mean of itself little or nothing, should that standard be lowered, or, in connection with the earnest efforts which are being made to raise the educational platform, should not the lines be even closer drawn which separate the conscientious physician, holding a just view of the dignity and nobility of his occupation, from the mercenary?

He would be a narrow-minded man indeed who would abstain from producing a valuable invention because lack of a patent would give its benefits to humanity primarily and to himself but secondarily. Prof. Shoemaker suggests that patents would secure inventors from possible (but scarcely probable) loss. No doubt it might, and if skilfully advertised do much better, but it would at the same time tend to increase the number of attacks of acute mania which have afflicted the medical world and set our professional brethren pumping gas and injecting testicular juice, giving them a brief newspaper notoriety, to the shame of the profession.

My honored teacher has good reason to know that an able physician is rewarded by the homage of his

fellows, and indirectly by the shekels of the public, and I cannot see that his standing in the community could be improved by the exhibition of a model in the Patent Office.

MANLY F. GATES, M.D.

U. S. S. "KEARSARGE," PORT-AU-PRINCE, HAYTI.

CINCINNATI CORRESPONDENCE.

DR. C. C. COMEGYS, Cincinnati's Nestor, has been re-elected President of the Board of Trustees of the Cincinnati University. Dr. Comegys is an honored member of the medical profession, and eminently fitted for this post; especially as the medical, dental and pharmaceutical colleges are now departments of the University. The University library has recently been enriched by the library of Matthew Thomas, left them by will, also the sum of \$150,000 by the same testator.

A new dental college is being organized. It is to be the dental department of the Cincinnati College of Medicine and Surgery. The faculty will consist of G. S. Junkerman, M.D., D.D.S., Dean of the Faculty, Professor of Special Anatomy and Operative Dentistry; John M. Shaller, M.D., Professor of Physiology and Practical Histology; W. E. Lewis, M.D., Professor of Descriptive and Practical Anatomy; A. I. F. Buxbaum, M.D., D.D.S., Professor of Prosthetic Dentistry and Dental Metallurgy; Charles H. Martin, D.D.S., Professor of Dental Materia Medica and Dental Pathology; Wm. Dickore, Ph.D., Professor of Theoretical and Analytical Chemistry. A dispensary and dental laboratory will be connected with the new school. It will have a task before it if it displaces the hold the old and honored Ohio College of Dental Surgery has on our people.

Hypnotism has received a set back in Cincinnati. Health Officer Prendergast has done a very commendable thing by forbidding a public exhibition by a certain "Professor." The Health Officer has the support of the medical profession in this stand. Dr. A. B. Richardson, of this city, late superintendent of the Insane Asylum at Athens, has recently written a very able article on this subject. The general opinion is that it is a matter which demands careful watching that it does not more harm than good, but which, under certain restrictions, is capable of much good.

The Cincinnati Hospital report for the past year, as made by Superintendent McLean to the Board of Trustees, is as follows: Births, 216; total number in the hospital during the year, 5,020; discharged, 4,325; died, 379; remaining over, 316. The daily average cost of maintaining a patient is 83.9 cents. Total number treated in the accident ward, 429. The total number of accident and patrol wagon cases amounted to 1,289, and out of that number 18 were dead on reaching the hospital. In the drug department there were 24,930 prescriptions made during the year, at an average cost of 11¼ cents. The library fund, which comes from the tickets to lectures in the amphitheatre amounted to \$1,275.00, which means 255 students in attendance on the clinical lectures.

The Cincinnati Obstetrical Society at its annual meeting elected the following officers for the ensuing year: President, Dr. E. W. Mitchell; Vice-President, Dr. Rufus B. Hall; Recording Secretary, Dr. Thos. P. White; Corresponding Secretary, Dr. E. S. McKee; Treasurer and Librarian, Dr. John L. Cleveland.

Dr. E. W. Mitchell has the dual and simultaneous honor of being president of two medical societies in the same city. The Obstetrical and the Walnut Hills.

A sad case is reported from Fostoria. A prominent and honored dentist was accused of rape by a milliner who was having her teeth treated. The affair weighed quite heavily on the doctor, and, though acquitted, he was taken ill, and died. What punishment is mete for that woman?

Drs. C. D. Palmer and Geo. F. Allen each have a child under their charge at the Cincinnati Hospital born prematurely, being nourished in the Tarnier incubator. Both children are doing well, and the incubator seems to be a success. An old negro woman in Cincinnati anticipated the Tarnier incubator some years ago. She had a number of premature births, and always, to her great grief, lost them. Finally, she remembered how the "possums" did down in old "Kaintuck," and when her next baby was born she tied it in cotton close to her body and kept it there two months. This child is alive and grown.

Death has been busy in Cincinnati during the past winter. Three prominent members of the medical profession have died. Dr. Benjamin F. Richardson was long known as one of the most successful practitioners of medicine, and was at one time a professor in the Medical College of Ohio. Dr. John Davis was one of the founders of the Miami Medical College, and for many years Professor of Anatomy, and later of Materia Medica. He was one of the founders and President of the Union Central Life Insurance Company, and President of the Ohio Humane Society and the Law and Order League. The third in the list was Dr. Charles A. Miller, for twelve years Superintendent of Longview Asylum for the insane.

The Dawson prizes were contested for the eightieth annual time at the Good Samaritan Hospital recently. These consist of prizes given the students of the Medical College of Ohio, in dissecting, drawing and bandaging. The contest was quite a spirited one, and the results, though sealed for the present, will be divulged on commencement night. A very beautiful feature was the speeches made after the contest. Dr. C. G. Comegys was called upon, and described the students of his time and those of the present. In his time the students sat with their hats on during the lecture. He then referred to the contest and the contestants. He said the doctor stood nearer the heart of humanity than any other class of persons. He referred to the fact that medicine is broad and knows no state lines or politics. The doctor is not a prisoner of war, he is too human for that. The speaker had often asked prisoners of war, after our late conflict, how the doctors had treated them. The universal answer was, well, fully as well as they could under the circumstances, and that they were always bemoaning their scant means of mitigating their suffering. After the war was over, the first to stretch the hand of friendship over the red field of war was the medical profession. They invited the restoration of the National Assemblies. At Detroit, in 1866, Dr. D. W. Yandell, of Louisville, was elected president, and the next year the meeting was held in New Orleans. The preachers are fighting yet. Major-General W. A. Quarrels, of Clarksville, Tenn., an ex-Confederate, was present as a patient of Dr. Dawson, and was called on for a speech. He responded with true Southern warmth and feeling. He lauded the army surgeon in glowing and grateful terms. He had been under his care and received great benefit. He thought the medical men had a right to be proud of their broad humanity and of the fact that they were the first to meet in fraternal association after the war, and shake hands across the field still red. He related a stirring instance which occurred at the time

of Lincoln's assassination, when he was a wounded prisoner of war in the North, and was attacked by a blind and infuriated mob, and how bravely he was defended by Union surgeons, nurses and convalescent soldiers. After listening to some more very pleasant remarks, the guests adjourned to the dining hall where an elegant feast was spread for them by Dr. Dawson.

Book Notices.

REPORT ON THE SEWERAGE SYSTEM, etc., of Berlin, Dresden, Frankfurt, and Paris. Made to Hon. Edwin H. Filer, Mayor of Philadelphia. By PETER D. KEYSER, M.D. Philadelphia: Dunlap & Clarke, 817 Filbert street.

In his travels Dr. Keyser has used a pair of very keen eyes to good advantage.

AUSCULTATION AND PERCUSSION. By F. C. SHATTUCK, M.D. Detroit: Geo. S. Davis. 1890. Cloth, 50 cents; paper, 25 cents.

This little manual is so good in every way that we would be glad to see it in the hands of every medical student. It is precisely what they want—concise, but explicit.

A COMPEND ON GYNECOLOGY. By HENRY MORRIS, M.D. With forty-five illustrations. Philadelphia: P. Blakiston, Son & Co., No. 1012 Walnut street. 1891.

This is an excellent compend; much better than the other one written by the same author. The illustrations are only fair, especially those taken from Byford, in which the disproportionate size of the hands mars the usefulness of the picture. The directions for examination, and the outlines of disease-description could scarcely be improved.

AERTZLICHER ALMANACH. Herausgegeben von med. DR. ADOLF KALLAY. Jahrgang Wien, 1891. Verlag von W. Braumueller & Sohn.

This answers to our own pocket case books, and a description of how this need is met in Germany may be of interest. The book is a thick and stubby little volume, poorly bound in cloth, consisting of over 400 pages three and a half by five and a quarter inches. It contains a calendar, some tables, portrait and biography of Popoff; Cantani's diet for diabetics, index of diseases and treatment; Drasche on Heart-tonics; table of drugs and doses; doses for hypodermics; antidotes; list of European health resorts, giving seasons, etc.; the staffs of every medical faculty in Europe, and, finally, the daily record. The latter is simply in the form of blank pages, with two columns on each, one for each day of the year. Visits are evidently to be recorded as in a day-book—each one separately on each day. This gives the maximum of labor, but has the advantage of being a legal proof of the account that could be presented as evidence in a court of law. But the average American prefers a system by which he need only write his patient's name once a month, and make a dot or a line to indicate a visit.

JAPAN had a plethora of epidemics during 1890. Influenza reached her shores in February. Cholera followed, with over 31,000 deaths. Dysentery affected 38,878 persons, with 7,262 deaths; a ratio of 18.94 per cent. Typhoid fever occurred 22,784 times, with 5,369 deaths; 23.56 per cent.—*Sei i kwai*.

Pamphlets.

The Franklinic Interrupted Current; or, My New System of Therapeutic Administration of Static Electricity. By William James Morton, M.D. Reprinted from the *Medical Record*, January 24, 1891.

In What Class of Wounds Shall We Use Drainage? By Henry Orlando Marcy, A.M., M.D., LL.D. Reprinted from the *Transactions of the American Association of Obstetricians and Gynecologists*, September, 1890.

Surgical Relief for Biliary Obstruction. By Henry O. Marcy, A.M., M.D., LL.D. Reprinted from the *Journal of the American Medical Association*, December 20, 1890.

The Medical Digest.

FRENCH NOTES.

A. E. ROUSSELL, M.D.

COCAINE IN OBSTETRICS.—Dr. Bousquet, of Marseilles, reports thirty-two cases of labor in which he used hypodermics of a $\frac{1}{20}$ solution of cocaine, $\frac{1}{2}$ syringe of Pravaz being injected in each labia majora near the fourchette five or ten minutes before spontaneous expulsion, or before artificial intervention. Of these thirty-two cases twenty-two were natural labors, and ten cases necessitated the use of the forceps, version, or the basiotribe. In all, cocaine was employed, either by injections in the labia majora, or by vaginal tampons. We have always had the satisfaction to notice if not suppression, at least a considerable attenuation of the suffering. The two cases in which antipyrine was employed were without result.—*Archives de Tocologie*.

PREPARATIONS OF SACCHARINE.—Saccharine being each day more employed in therapeutics, the following formulæ may be found useful:

Simple Solution of Saccharine:

R.—Saccharine soluble..... 30 grains.
Distilled water..... 8 ounces.

May replace simple syrup.

Solution of Saccharine 1 per cent.:

R.—Saccharine pure..... 15 grains.
Bicarbonate of soda..... 75 "
Distilled water..... 3 ounces.

Twenty-five drachms of this solution correspond to sixty-two drachms of sugar.

Saccharinated Syrup of Rhubarb:

R.—Rhubarb root..... 375 grains.
Carbonate of Soda..... 1 "
Distilled water..... 75 drachms.
Saccharine soluble..... 22 grains.

Replaces the simple syrup of rhubarb.

Saccharinated Syrup of Orange:

R.—Tincture of bitter orange peel..... $2\frac{1}{2}$ drachms.
Simple solution of saccharine..... 17 "

Saccharinated Syrup of Senna and Manna:

R.—Senna leaves..... 525 grains.
Anise "..... 30 "
Distilled water..... 62 drachms.
Saccharine soluble..... 30 grains.
Manna..... 1500 "

Saccharinated Emulsion of Almonds:

R.—Sweet almonds..... 375 grains.
Saccharine soluble..... 15 "
Distilled water..... 62 drachms.

Powder of Saccharinated Almonds:

R.—Sweet almonds..... 900 grains.
Powdered gum Arabic..... 120 "
Saccharine..... 8 "

Mixture of Saccharinated Almonds:

R.—Powder of saccharinated almonds . 1 part.
Distilled water..... 10 "

Saccharinated Dover's Powder:

R.—Powdered ipecac root..... 75 grains.
" opium..... 75 "
" gum Arabic..... 600 "
Saccharine soluble..... 3 "

—*Bulletin Médical*.

SALICYLIC ACID is now a very important drug, and cautions have been repeatedly given that the impure article of commerce is not safe for internal use. But Spenser (*Columbus Medical Journal*), after an examination of sixteen samples, concludes that the present crystalline synthetic acid leaves nothing to be desired.

WE have already spoken of the remarkable properties of Lanoline Soap, which is becoming a favorite for persons whose skin does not bear ordinary soaps. To the list of lanoline preparations has now been added a *Lanoline Toilet Salve*. This is made from lanoline, paraffin liq., ceresive and perfume. It has been recommended as the best home remedy against chapped hands and lips, burns, cuts, bruises, corns, piles and for preserving and softening the skin, especially in children.

BARBER'S PALSY.—At the Calcutta Medical Society, Dr. Adie showed a barber, aged fifty, who was suffering from what he might call barber's palsy. The symptoms commenced about a year ago. He was quite unable to hold or use a razor owing to trembling and weakness of the right hand and arm. Other movements, such as picking up a coin off the floor, he could execute fairly well, and he could hold and use a knife quite steadily with the left hand.

—*Indian Med. Gazette*.

THE TREATMENT OF MALIGNANT TUMORS WITH PYOCTANIN.—At the last meeting of the Vienna Society of Physicians Prof. Mosetig showed two cases of malignant tumors (sarcoma) which had been treated successfully by him some months ago with pyoctanin. In one of them, the patient being fifty years old, the sarcoma was situated in the inguinal region, and was considerably shrunken after repeated injections of solutions of pyoctanin into the tumor and its neighborhood. The solution was prepared from Merck's pyoctanin in the strength of 1 in 300 and 1 in 500 of water respectively.

HYDRASTIS vs. PHTHISIS.—I have used hydrastis for the past thirty years as a local application to inflamed mucous surfaces; and noting its efficiency, especially in inflammatory conditions of the pharynx, it occurred that it might be equally efficacious in the treatment of bronchitis if it were possible to apply it directly to the inflamed membrane. Accordingly, about four years ago, to accomplish this I administered it by inhalation in the form of a vapor. The result was very satisfactory. I then used it in a case of bronchitis complicated with chronic hepatization, and was surprised to find that not only the bronchitis, but also the pneumonic deposit disappeared. I have used it in the different stages of phthisis over three years, and

my experience justifies me in asserting it to be a remedy of remarkable efficacy if properly and perseveringly used.

During the first month of treatment the night-sweats usually disappear, and the cough and expectation is greatly diminished; the patient has a better appetite, better digestion, and gains in strength.

I obtain the best results by using it in combination with chloride of sodium, one part of the fluid extract of hydrastis to three parts of a saturated solution of the salt.—Palmer, *The Med. Age*.

FISTULA IN ANO.—In an article published in one of the best medical journals, a distinguished surgical teacher is made to say: "In operating for fistula in ano, introduce a grooved director into the external opening, push it into the bowel, and bring the point out of the anus; then, with a sharp knife, divide all the tissues upon the director; *this completes the operation.*" This advice is not only misleading, but is an error. The bottom of the sinus should be divided as well as the top, and if any additional sinuses exist, as they do in the majority of cases, they, too, must be freely divided. No operation is "complete" until this is done, and a failure to attend to these precautions will end in a futile attempt to eradicate the fistula.—*Med. Progress*.

COLITIS.—I would submit the following conclusions:

1. Inflammation about the caput coli is, as a rule, appendicitis.
2. A certain proportion of cases will recover spontaneously by resolution. With these, recurrence of the disease is common.
3. In the larger proportion the disease will endanger life, and may at any moment assume a practically hopeless condition.
4. Operation involves less danger than delay, and should be resorted to in all cases in which a high grade of inflammation is persistent.
5. The essentials of the operative technique are brief anæsthesia, quick and thorough work, removal of the appendix, irrigation, and drainage. The lateral incision is preferable to the median.

—McMurtry, *Med. Progress*.

REMOVAL OF THE GASSERIAN GANGLION.—On Thursday, the 29th ult., at King's College Hospital, before a large gathering of the profession and of students, Prof. W. Rose repeated his operation for the removal of the Gasserian ganglion on the right side. The operation occupied about one hour and a half. The eyelids were stitched together on the side of the operation in order to obviate any chance of injury to the eyeball. The base of the skull was reached by sawing through the zygoma and the coronoid process of the lower jaw respectively, turning the masseter downwards with the former, and the temporal muscle upwards with the latter; the trephine was then applied at the foramen ovale, and through the opening made the ganglion was drawn down by a blunt hook and separated from its attachments by another hook with a cutting inside edge: these hooks, set on long handles, had been specially made for the operation. Electricity was employed not only for the purpose of illumination, but also to drill the several pieces of bone so as to suture them together at the end of the operation. The woman, a patient of Prof. Ferrier's, was sixty years of age and had long suffered from an agonizing tic.

—*Med. Press*.

TAPPING FOR ACUTE SYNOVITIS.—Owen (*The Practitioner*) describes nine cases of traumatic effusion into the knee-joint, treated by tapping. In some instances the aspirator was employed, but in others he used a hydrocele canula. Strict asepticism was enjoined, and care taken to prevent the access of air to the joint. He had never known trouble to follow, and employed tapping as a routine treatment in patellar fractures and simple distention.

As a rule the puncture is made to one side of the patella. When withdrawing the canula the track is obliterated by firm pressure with the finger. The skin puncture is covered with a scrap of lint dipped in collodion, or by a little pad of dry wool. The knee, together with the upper half of the leg and the lower half of the thigh, is then enclosed in lateral splints of house-flannel and plaster of Paris. The limb is fixed in the extended position, the foot being slightly raised. The firm pressure which is made around the joint is comforting, and it effectually prevents further effusion into the synovial membrane.

"Having watched the effect of this method of treatment, I can honestly say that, should I have the bad luck to be the subject of acute traumatic hæmarthrosis or sero-synovial effusion of the knee, I should most certainly have the joint treated in the manner described. And I should ask that the site of puncture might be first numbed by the application of a little piece of ice and some salt."

RENAL CALCULI.—It is very important, from a surgical point of view, to know whether one of the kidneys is sound. The fact is certain, when during the nephritic colic, the urine, after being purulent, becomes limpid. When the case is otherwise, we cannot affirm disease of both kidneys, for the ureter on the diseased side may be incompletely obstructed. Of late, it has been proposed to catheterize the ureter with the view of determining the state of both kidneys, but the idea is absurd.

In the female it has been advised to dilate the ureter; to illuminate the interior of the bladder by means of the electric light in order to find the orifice of the ureter. According to Pawlick, these precautions would also be useless, for the urethra, the trigone, and the orifice of the ureter, may be felt through the anterior vaginal wall, and this would enable one to guide directly the instrument; but the operation would be both dangerous and useless. In the male it has been proposed to obstruct temporarily one ureter in order to ascertain the state of the other kidney.

Other authorities have advised the establishment of a renal fistula on the side supposed to be diseased, before deciding on extirpation. This exploratory nephrotomy is the worst kind of treatment.

Let me say, in concluding, that even when the urine of one kidney is absolutely clear, this fact does not exclude the possibility of a diseased state of this organ, an atrophy for example, and the patient may die of uræmia after the extirpation of the other kidney, which has been found to be the seat of calculi.

—Germain Sée, *Med. Age*.

TREATMENT OF OOPHORITIS.—A young married lady had suffered intensely from dysmenorrhœa and copious leucorrhœa for a considerable period previous to her marriage. I was convinced that endometritis was present, this having been induced by attending dancing parties night after night quite irrespective of the fact that frequently she was menstruating at the time. Menorrhagia also existed, which was induced

by the same reckless conduct. After marriage her symptoms became aggravated, and she came to me complaining of intense prostration, both mental and physical, while pain on the least exertion was very acute over both ovaries and in the back. Defaecation was very painful, and there was profuse muco-purulent discharge. On examination, both ovaries were found to be enlarged and hypersensitive to touch. The uterus was retroflexed, and there was endometritis. Dyspareunia also existed to a prohibitive extent. She was put under treatment which consisted in the weekly application of iodized phenol to the endometrium, and each time the uterus was restored to its normal position and retained there by means of tampons soaked in glycerine of alum and boracic acid, which were removed in three days and fresh ones inserted. In less than four months all traces of discomfort had disappeared; the uterus remained *in situ*, and the ovaries were reduced to their normal size, and within a year afterwards she became pregnant.

There would be no difficulty in citing any number of additional cases to illustrate what I have endeavored to describe as one of the most potent factors of oophoritis, and to demonstrate what happy results can be attained by the employment of suitable measures for the restoration of the uterus, when disease of this organ is concomitant with oophoritis.

I do not, however, wish it to be inferred that I hold oophorectomy can always be avoided, but at the same time I cannot refrain from stating as my firm conviction that in many instances it may be avoided if the treatment I advocate receives an honest trial.

—Bell, *Med. Press.*

TERPENE IODIDE IN ACUTE DISEASES OF THE LUNGS.—For the past two or three years I have carried on a series of therapeutical investigations in search of some antiseptic agent that would act as a specific against the development of acute diseases of the lungs, more particularly acute congestion, pneumonia, and those catarrhal and throat affections which are so often the premonitory symptoms of more serious mischief.

While I have demonstrated to my own satisfaction that these diseases may be cut short, I am not so sanguine that the remedy will prove curative in all cases where a disease is once fully developed, yet further investigation may prove that it possesses specific properties even in these cases.

It has been my desire only to suggest some drug or combination of drugs which will prevent the ravages of the various cocci that are carried into the lungs through the agency of those septic storms which are so frequent in this climate, before an actual disease of the lungs has been established.

I believe that terpene iodide enters into the circulation unchanged, from the fact that it acts as quickly as if it were administered hypodermically. It is my judgment that the remedy offers greater success and produces happier results than any other of this class of remedies. While it is a powerful antiseptic, it is comparatively harmless, for, after prescribing it for several years, I have yet to meet with any unpleasant effect.

In acute affections of the throat it may be used in spray, while in other cases it may be given to adults in ten-drop doses, on a teaspoonful of sugar, once or twice a day—in the morning and at bedtime. The morning dose should be followed by a glass of milk or bouillon. Larger or more frequent doses are apt to excite too great a discharge of urine.

I have no doubt that terpene iodide will, should it

come into general practice, find a wider range of usefulness than that above indicated. As to its value in phthisis pulmonalis, diphtheria, and other zymotic diseases, I am at present unable to speak.

—Gregg, *N. Y. Med. Jour.*

CYSTINURIA.—At a meeting of the Royal Academy of Medicine in Ireland, Dr. Walter G. Smith read a paper upon Cystinuria. The condition is a rare one, and scarcely seventy cases are upon record.

A boy, aged eight years, was reported by his mother to have passed urine of a fragrant, orris-root odor, and depositing a greenish sediment. The boy's health was excellent in all respects, and there were no symptoms of urinary irritation. Out of six occasions upon which the child's urine was examined, once only was cystin found. The crystals were identified by their form, solubility in ammonia, and insolubility in acetic acid. The true formula of cystin is $(C_3H_6NSO_2)_2$. Dr. Smith discussed in some detail our present knowledge of the physiology and pathology of cystin. The following summary may be given:

1. Cystin, or a cystin-like body, occurs in small amount in human urine, as a normal product of proteid metabolism.

2. No relationship exists between uric acid and cystin.

3. Associated with cystinuria, pathologically, is the occurrence, in the urine and fæces, of certain ptomaines, belonging to the class of diamines, viz.:

(a) Penta-methylene diamine (Cadaverin), $C_5H_{14}N_2$.

(b) Tetra-methylene diamine (Putrescin), $C_4H_{12}N_2$.

4. Normal urine and fæces never contain diamines, nor do they occur in cystin calculi.

5. The formation of diamines is due to the agency of specific bacteria in the intestine.

6. The exact nature of the correlation between cystinuria and diaminuria has not yet been determined.

7. Cystinuria may persist for years without apparent injury to the health of the patient.

8. The therapeutical indication is to disinfect the contents of the bowel.—*Dublin Jour. Med. Sci.*

NON-OPERATIVE TREATMENT OF HEMORRHOIDS.

—*Daily action of bowels.*—Owing to hurry many sadly neglect the bowels, which act very irregularly. It is very important that they should be trained to act once a day from childhood, say, immediately after breakfast, and those who have paid proper attention to this rule but seldom require treatment. Sponging the anus and surrounding parts with soap and cold water is a very efficient application. Acrid fluids, etc., which during the ensuing day would irritate the skin, are removed.

Diet, etc.—In this country we, as a rule, eat far too much meat and too little vegetable food. I am confident that this habit has much to do with the costive state of bowels and the formation of hemorrhoids. I have seen cases of hemorrhoids with constipation cured by such attention alone, by taking apples or pears after breakfast, by increasing the quantity of cabbage, cauliflower, etc., taken with dinner and with lucheon, and by at the same time diminishing the amount of meat eaten.

Exercise.—I believe that this is a most important cause, and that if a reasonable amount of physical exertion were undergone by the nation generally, constipation and hemorrhoids would very seldom require treatment, the liver would be well kneaded daily, inspissated bile would be propelled, and the action of the intestines would be assisted by the abdominal muscles.

Injections.—It is astonishing how much relief some patients obtain by an injection daily of as much water as can be retained for four or five minutes with comfort. I generally begin by recommending lukewarm water, but as soon as the patient can bear cold I order it. This seems to stimulate the whole bowel from above downwards, to act as a tonic on its interior by daily removing large masses which lodge in the rectum, to enable its walls to regain their elasticity and contractility, and by removing irritating secretions and pressure, to prevent hyperplasia of cellular tissue which accompanies a dilated condition of veins.

Alcohol.—Those who suffer from hemorrhoids should, if possible, give up taking stimulants entirely; for they tend to produce a dilated condition of vessels everywhere, and by causing disease of the liver of an obstructive character give rise to dilatation of all the small branches of the vena porta, and those of the rectum suffer more than any.

I may here repeat what I have already said, that nearly all cases of hemorrhoids, both internal and external, can be cured by proper, simple, rational medical treatment.—Thomas, *Lancet*.

CEREBRAL HEMORRHAGE.—With regard to the diagnosis of hemorrhage at the surface of the brain, the symptoms, in case of extensive lesion, are similar, whether the rupture be of the middle meningeal artery (producing hemorrhage between the dura mater and bone), or of the underlying vessels of the pia mater (producing hemorrhage into the arachnoid cavity). It will, therefore, not be out of place to enumerate the symptoms of hemorrhage from the middle meningeal artery in the order considered, to be that of their comparative value by Jacobson, in his exhaustive treatise on this subject in the *Guy's Hospital Reports*.

1. A period of consciousness intervening between the accident and the symptoms of compression. This period may vary, according to Wiesman, from fifteen minutes to eleven days. It may be absent, as Jacobson states, on account of (a) the severity of the original violence, (b) depression of bone, (c) accompanying injury to the brain, (d) the extravasation having been immediate and copious owing to the size of the branch where ruptured, and (e) drunkenness.

2. Hemiplegia, paraplegia, rigidity. The hemiplegia is not always present or always complete; where partial, the arm is likely to be affected without the leg, or with only a paresis of the leg; but the leg is probably never paralyzed without the arm. Paraplegia may occur in the case of extension from one hemisphere to the other. The paralysis may, in exceptional cases, be temporary.

3. Dilatation (usually unequal) of pupils, the pupil being generally larger on the side of the hemorrhage, on account of extension forward upon the sphenoidal fissure, causing paralysis of the third nerve. (Hutchinson.)

4. A slow, full, and laboring pulse.

5. Unconsciousness, passing into coma.

6. Stertorous, laborious, or "snorting" respiration, or the breath emitted from the corner of the mouth like a whiff or puff of smoke. (Guthrie.)

7. Ecchymosis or contusions of the parietal and temporal regions, giving rise to a puffy or pulpy feel, and bloodlessness of the bones overlying the clot, probably due to interference with the blood supply on account of separation of the dura mater. (Ab-ernethy.)

Wiesman adds, vomiting, unilateral impairment of sensation, aphasia, disorders of the bladder and rectum, automatic movements and lying always on one side, and rise in temperature. He adds also that convulsions may precede the affection.

—*Boston Med. and Surg. Jour.*

INOCULATION OF DOG SERUM AS A REMEDY FOR TUBERCULOSIS.—In a series of communications made in the course of the last two years to the Société de Biologie, MM. Héricourt and Richet have given the results obtained by the injection of the blood of an animal refractory to tuberculosis, such as the dog, into the economy of one susceptible to the onslaughts of the bacillus. They have demonstrated experimentally that such a proceeding exerts a retarding influence on the evolution of tuberculosis artificially communicated, without, however, stopping it altogether. With a view of intensifying these partially protective properties of canine blood, they inoculated the dog with a large dose of very active tuberculous matter, and one month later (the animal having lost flesh, and exhibiting manifest signs of ill-health) injected into the peritoneal cavity of three rabbits 70 cc. of the dog's blood. A week later these rabbits were, with three other test rabbits, inoculated with strong tuberculous virus, with the result that in twenty-five days two of the latter had succumbed, the rest surviving. Their ultimate fate is not recorded. Encouraged by these results, MM. Richet and Héricourt have extended the application of their method to tuberculous human beings, employing the serum only, and selecting the interscapular region as the seat of inoculation. M. Richet reports (*Société de Biologie*, January 24) that four phthisical men have, since the early part of December, 1890, been subject to this novel treatment. The results obtained seem to warrant the assumption that the introduction of the serum of dog's blood into the human economy counteracts, to some extent at least, the noxious influence of Koch's bacillus. In all four cases (two being affected with pulmonary and two with concomitant laryngeal and pulmonary phthisis) eighteen days' treatment had the effect of suppressing the night-sweats, improving the appetite, increasing strength and weight (one patient put on flesh to the extent of over nine pounds), and minimizing the physical signs. In the two cases of laryngeal phthisis, the epiglottis, which was very swollen and motionless, became much reduced in volume, and regained its mobility, the distressing agony experienced during deglutition disappearing. The inoculations (dose, from 1 to 4 cc. every three or six days) are followed by neither local nor general reaction. On two occasions only was pain (lasting twenty-four hours) complained of. In all the cases the interscapular region became the seat of itching, developing some time after the operation, and attaining its maximum eighteen or twenty-four hours later.—*The Lancet*.

BRONCHIECTASIS IN YOUNG CHILDREN.—It is always secondary to some antecedent lung trouble—bronchitis, pneumonia, or pleurisy. It is true that the acute specifics, especially measles and whooping-cough, are frequently its precursors, but this is mainly on account of the frequency with which these diseases are attended by pulmonary complications.

The clinical history is as follows: The child is, to begin with, ill-nourished and perhaps rickety, so that any inflammatory lung disease is very likely to become chronic. Such a child gets measles or whooping-cough, or, as is so often the case, the one soon

after the other ; the ordinary bronchial catarrh attendant thereupon extends downward in so badly nourished a patient, and sets up an acute bronchitis or even a broncho-pneumonia. The acute specific fever *per se* further weakens the child, and if not immediately fatal the pulmonary mischief tends to become chronic ; in fact, Eustace Smith has especially pointed out that when catarrhal pneumonia occurs as a complication of measles or whooping-cough the sub-acute character may prevail from the first. From all these causes combined the elasticity of the bronchial tubes is impaired, and they become more than usually dilatable, and thus the train is laid for securing the rapid development of bronchiectasis.

Of treatment unfortunately but little can be said, beyond emphasizing the obvious importance of taking every precaution to prevent any fresh catarrh, and to maintain the general health. Probably, when practicable, the placing of the patient in a suitable climate—free from damp, fog, and sudden changes of temperature—is the most urgent indication.

Prophylaxis, however, is the most important ; the disease is most likely to supervene in badly-nourished delicate children, and therefore when these are attacked by bronchitis or broncho-pneumonia, we should not only treat the local disease, but also (which is of even greater importance) try to improve the general health and tissue-vitality, being especially careful not to persist too long in the use of depressant pulmonary remedies. The child will be placed in the best position for getting rid of its disease by having its general vigor increased. Thus may we hope to prevent the mischief becoming chronic, and also to ward off the danger of a relapse. We should always bear in mind the possibility of an attack of bronchitis or broncho-pneumonia, even in very young children, and particularly after measles or whooping-cough, leading—quite apart from the ever present danger of tuberculosis—to a practically incurable form of organic lung disease, the comparative frequency of which is perhaps hardly sufficiently recognized.

—Carr, *The Practitioner*.

COFFEE.—I recall the case of Mrs. S., a mother of five children, all born within eight years, one or more of them sick half the time from the time of their birth. Mother conscientious and ever alert to her duty, suddenly taken down with heart trouble and such nervous symptoms as to apparently imperil life. Upon examination, I discovered an almost bloodless woman, with a heart beating irregularly, but so fast as to be almost beyond counting. A restless, hunted down expression of face and physique ; no fever ; an utter inability to sleep ; no appetite for weeks past. The history which I soon elicited demonstrated the fact, which had been overlooked by her attendant, but which I suspected from seeing a coffee pot upon the table by the bedside, viz., that the mother, in order to bear up under the burdens placed upon her, had been for six months absolutely living upon black coffee. The desire for food or ability to digest it had long since gone. The blood had become impoverished from lack of sustenance. Like the indiscreet owner of the thorough-bred roadster, she had been constantly feeding with the whip instead of oats. Her cerebro spinal centres, the acceleratory nerves of her heart, would have soon been whipped to the point of exhaustion. Opiates and digitalis, whisky and pre-digested milk, good sleep, a check rein upon her circulatory organ, oats instead of the whip, in the form of nutrition easy to assimilate, gradually brought the patient around to a condition of health. It may

not be uninteresting to state that this excellent woman, although a coffee drunkard, was a member of the local Temperance Union.

After years of extended observation and pronounced personal experience, I feel justified in announcing :

1. The world has in the infusion of coffee, one of its most valuable beverages.

2. As a prompt diffusible stimulant either by the stomach or by injection into the rectum, it is in all cases of shock, preferable to alcohol.

3. It is antagonistic to malaria and specially destructive to the typhoid bacillus and cholera germ, and for this reason it is an admirable remedial agent in these conditions, both as a direct stimulant, an antiseptic and an encourager of elimination.

4. One of its chief advantages in health and disease is in the fact that it aids in the securement of that psychical satisfaction which is conducive to hope, comfort, good digestion, great power of resistance and rapid recuperation.

5. In season, it supports, tides over dangers, helps the appropriative powers of the system, whips up the flagging energies, enhances the endurance, but is in no sense a food, and for these reasons and many others, it should be used temperately, as should all of nature's benign gifts.

6. In excess, it is even more dangerous than alcohol, for it is not, like the latter, a nutrient, nor is the effect of its excessive use so apparent or unrespectable.—Love, *Jour. Am. Med. Asso.*

BIPOLAR FARADIZATION.—The main points considered may be thus summed up :

1. From the continuous-coil apparatus, owing to its combination of helices, the wires of which differ in thickness and length, proceed four qualities of current that vary in a most remarkable degree in all the properties of electricity—physical, physiological and therapeutical.

2. That the variation is observed most markedly when applications are made internally to the vagina, uterus, rectum, or bladder, by the bipolar method.

3. From the primary or first induction coil, we obtain a current of quantity that is barely perceptible externally, but internally, and especially by the bipolar method, acts with greatly increased efficiency.

4. From the combination of the primary and secondary induction coils we obtain a current of greater tension, but which still acts mildly when applied externally. Applied internally, however, its effects are far greater than the first coil, both in exciting the sensibility and contractility, and the utmost caution must be exercised in its use. In the same degree, also, it acts upon the vagina, rectum, bladder, and testes. This current is especially applicable in the treatment of enlargements of the uterus due to sub-involution, but is of little or no value when the enlargement is due to fibrous tissue. It is of especial value in post-partum hemorrhage, and from its power to excite the sensibility and contractility of the bladder and rectum it may be used with good effect when these organs are anæsthetic or suffer from diminished or lost contractility.

5. From a combination of the first, second, and third induction coils we obtain the maximum of power to excite both sensibility and contractility on the external surface of the body, each additional coil simply giving a decreasing power over sensation and contraction. Applied internally, however, it acts far less powerfully than either of the two previously named currents ; but in the ordinary forms of paralysis of voluntary muscles it will more readily call forth

contractions than the current from any other combination of coils.

6. From the first, second, third and fourth induction coils combined, a current is obtained, differing from and superior to all the others in its sedative and general tonic effect upon the system at large. It neither acts upon the sensibility nor muscular contractility when applied externally, as does the third current of the series, nor with a tenth or even a twentieth part of the acuteness when applied internally, that characterizes the second current of the series. For the purposes of general faradization, however, it is the only proper current to use, and for applications to the vagina and uterus, for the relief of many forms of pain, it possesses properties that are invaluable.

To those who look upon electricity with indifference, and would relegate its use to ignorant attendants to be used as a placebo, instead of intelligently and conscientiously developing the subject for themselves, the statements here made may seem of little importance.

For those, however, who are more hospitable in thought, and will take the pains to master the principles of physics and the technique of electrical applications, I confidently predict a plentiful harvest of good results.—Rockwell, *Med. Record*.

SOPORIFIC ACTION OF MERCURY.—I am not aware that the above action of mercury in the class of cases I am about to describe has been recorded. No doubt the fact is known to many of you, yet it does not appear to me to be so generally, and that is my reason for bringing the subject forward at this meeting.

The cases in which I have found blue pill—for this is the form of mercury I am referring to—give such good soporific effects they are rather difficult to describe, and must be given in a more or less general way. Many men would call them cases of biliousness, and for want of a better term I am content to use it. The patients are generally over forty, complaining of lassitude, loss of appetite, a general fullness of the abdomen, pains in the shoulder-joints, tongue generally of a whitish-brown color, a nasty taste in the mouth, eyes are rather "thick," a want of clearness of thought, more or less dull pain in the head, not confined to any one particular spot, irritability of the skin, and, above all, sleeplessness at night. There may be many more symptoms and signs than the above, or few of them may be present; but, when the symptom of sleeplessness is prominently complained of, it is here that we find the soporific action of blue pill followed by saline draughts peculiarly brought out. Now, the symptoms detailed are principally those found under the heading of bilious dyspepsia, but there is this important clinical difference: whereas sex, richness of food, want of exercise play important parts in producing the above form of dyspepsia, the cases that I have in mind are found as often, if not more so, in women, and where the plainest diet and moderate exercise have been taken.

There is a little doubt that the sea air has something to do with the above state of health; people who have come down to the seaside after a long residence inland frequently develop after a few days' sojourn all the aforementioned symptoms. I believe that we who practice in seaside resorts would less often be called upon to prescribe for this condition were a little mercurial taken immediately by the patient on his arrival; but, perhaps, on the whole, this had better be left in our hands.

Again, I do not associate these cases with those which are commonly called "lithæmia," or the substitution of uric acid for urea as the final product of disintegration of albuminous substances within the body; under this last condition you obtain the more remote symptoms of gout.

What is the exact action of the mercury which brings about the happy results I do not know, nor am I anxious to speculate or propose theories. Murchison supposed that it possessed a double action, for whether or not the secretion of bile was increased, there was certainly more bile passed when mercury was being taken; thus an eliminating action was brought about, so that less of the bile constituents were absorbed from the intestines than usually. Again, he supposes, in some way or other, the albumen is more thoroughly disintegrated. But what is important for us to know is the use of a drug which will enable you to give your patient a good night, whilst at the same time you are treating the root of the disease, and apparently not giving ordinary soporific drugs.

It is needless for me to use any padding to this paper in the way of quotation of cases; they would be uninteresting and wearisome; and the title of my paper does not admit it.—Tyson, *Brit. Med. Jour.*

TREATMENT OF HERNIA BY ASPIRATION.—On being called some years since to a case of recently strangulated hernia which I failed, under chloroform, to reduce by taxis, finding the tension in and distension of the protruded gut apparently the main obstacle to reduction, I emptied it by means of my hypodermic syringe, with the result that reduction was at once easily accomplished. I have since repeated the operation on thirty-two occasions, in twenty-eight of which reduction was readily accomplished, and in the remaining four three were, subsequent to aspiration, subjected to the usual operation (with one death from gangrenous gut), and one steadfastly preferred death to further operation, and succumbed on the tenth day. In neither of the three cases of herniotomy could any traces be found of the previous aspiration, due, I think, to two causes (1) the small size of the needle used—small hypodermic syringe; (2) the arrangement of the fibres (muscular) in the wall of the gut.

The class of cases which have appeared to me most suitable for the operation are (1) recent cases—thirty-six to forty-eight hours or less; (2) where the patient or friends refuse to submit to herniotomy. The simple aspiration can be designated "doing a little something." The advantages claimed for this procedure are:

1. It avoids the delay almost inseparable from the herniotomy, for example, gaining consent of friends, procuring adequate assistance, etc.
2. It avoids rough and heroic attempts at reduction by taxis by placing in the hands of the general practitioner a means of reduction easy of application, and requiring no extensive surgical skill for its performance, and, moreover, a proceeding which, by reducing the tension of the protrusion, lessens the danger of the taxis subsequently employed.
3. It avoids the risks of pyæmia and septicæmia, inseparable from all operations in which the skin is divided.

Let us consider in how far this operation is based on a consideration of the anatomical and pathological conditions present. We must remember that the internal abdominal ring, the inguinal canal, the external abdominal ring, the crural ring, the crural canal,

and the saphenous opening in the fascia lata of the thigh are all bounded chiefly, if not solely, by aponeurotic structures, which have become thickened and resistant although the openings have all become dilated. The margins of these openings forced back and thickened offer a strong passive resistance, so that if the protrusion becomes distended in any way by fæces or flatus, the neck or narrow portion is so wedged into these fascial openings or canals that it becomes compressed, the venous circulation impeded (both arteries and veins are, of course, compressed, but the thicker coats of, and the greater force of circulation in, the former render them less affected by the pressure), the proportion between the protrusion and the opening or canal through which it has descended becomes so altered that the hernia becomes irreducible. Now, seeing that (in recent cases, at any rate) it must be the distension of the protrusion which is the main obstacle to reduction, there having elapsed no time for the effusion of lymph or other inflammatory changes to occur, having failed to reduce by taxis, it appears to me to be a perfectly justifiable proceeding to at once empty the protrusion of whatever fluid or flatus it may contain, and, having thus lessened its bulk, to reduce by taxis.

—Hern, *Brit. Med. Jour.*

TREATMENT OF PNEUMONIA.—It has been conclusively shown that the mortality from the disease is directly proportionate to the severity of the symptomatic fever; and it is therefore but natural to conclude that the presence of a high temperature tends to destroy the functional activity of some vital organ. Standing out as it does in such bold relief to the other morbid phenomena of the disease, it is hardly surprising that the condition of the lung has always concentrated upon itself the attention of the physician, and constituted the recognized target at which all his remedial treatment should be aimed. At the present day, however, it is held by most observers that the symptoms of the malady are not the direct result of a simple inflammation of the lung; but rather the outcome of a constitutional affection. And since it will be admitted by all that, whatever may be the true pathology of the disease, there exists no definite relation between the amount of the consolidation and the severity of the fever, it is obvious that the lung cannot be that vital organ upon which a high temperature exerts such a destructive influence. We must therefore look elsewhere for the immediate cause of death; and every item of evidence, whether it be pathological or clinical, points to the same inevitable conclusion—namely, that the fatal termination of acute pneumonia is the direct result of cardiac failure.

There are two general factors which are capable of producing the condition of cardiac insufficiency—an increased resistance to the propulsive action of the heart, and a progressive deterioration of its muscular substance. And in acute pneumonia both these factors are conspicuously present; the former in the increase of tension in the pulmonary circuit consequent on the consolidation of a portion of the lung, and the latter as the direct result of a high temperature. The action of these two forces is to compel the heart to beat more forcibly and more quickly, while at the same time it is steadily deprived of the power to do either. In the asthenic variety of the disease the heart is intrinsically feeble from the outset, and hence the malign influence of fever is an unnecessary element in the production of its insufficiency.

That these *a priori* considerations are in accordance with actual facts has already been shown, for it has

been proved that death is most liable to supervene at two periods in the disease: about the fifth day, when the fever is at its height, or at the crisis, when cardiac collapse is apt to result from its sudden withdrawal. One step further. Two great methods of treatment have been examined in detail as to their influence upon the mortality from the disease. In the one we find that the chief remedies were aimed at relieving the condition of the lung; and while stimulants were freely administered with the object of whipping up the flagging heart, the cause of its physical lameness was allowed to proceed unmolested. The result was that among 552 cases so treated the mortality exceeded 23 per cent., although alcohol was exhibited in no less than 70 per cent. In the second case a method of treatment was adopted with one special object: to economize cardiac force by minimizing the injurious influences of fever. In 108 cases of similar severity to the foregoing the treatment consisted in the systematic reduction of temperature by means of sponging or ice cradling. Of this number only 45 (41 per cent.) received alcohol, and only 10 per cent. died.

Again, among the former class 46 deaths resulted from collapse at the crisis of the fever. Among the latter, where special attention was paid to this source of danger, not a single death is recorded from this cause. Nothing could be more conclusive, for these facts show to what a considerable extent the mortality from acute pneumonia may be reduced when prophylactic treatment is applied with the view of strengthening that vital position against which death almost invariably concentrates the force of his attack. And the success which has attended this rational treatment of acute pneumonia appears as a still further argument in favor of the specific febrile nature of the disease; for it would indicate that the consolidation of the lung is after all but an analogue of the typhoid ulcer and of the scarlatinal sore throat—a characteristic result, but never the cause, of the disease. It has also been shown that, firstly, the quantity of albumen in the urine is of considerable prognostic value; secondly, that the crisis is often a period of great danger to life; and thirdly, that those cases which commence with a severe gastro intestinal attack are twice as liable to end fatally as those which exhibit the more usual initial rigor.

—Fenwick, in *The Lancet*.

THE NITRITES.—Nitrite of amyl is much more prompt in its action than nitro-glycerine, but the latter is more stable, and consequently more permanently beneficial results follow its exhibition. In most affections in which their use is admissible, this statement being borne in mind, I shall treat of them as one, specifying those exceptional cases where nitro-glycerine is to be decidedly given the preference.

Nitrite of amyl has been long appreciated as a useful remedy to stave off or modify paroxysms of epileptic seizure. Considering the more permanent action of nitro-glycerine, analogy suggests that the continued administration of it in the epilepsy might reward us with positive benefit from a *curative* standpoint. As a palliative, being slower than amyl nitrite, it is not of the same value when the paroxysm threatens.

Both of these agents cut short the cold stage of *intermittent fever*. The administration of amyl nitrite is often followed by a fall of temperature, and in some cases several degrees. Nitro-glycerine is not so pronounced in its effect in this direction.

Both agents relieve *chronic hiccough*.

Nitro-glycerine has been recommended in the treatment of *whooping-cough* and *laryngismus stridulus*; but I cannot here speak from my own experience.

Both agents relieve *neuralgia of the fifth pair of nerves*, and both have given prompt relief in that form of *migraine* accompanied by facial pallor; but in cases of migraine marked by flushing of the face, the migraine is aggravated by the use of either.

Tetanus and hydrophobia are said to yield to their application, and good results are noted.

They form *antidotes* to strychnine poisoning; but I am much impressed with the thought that, just as opium and belladonna, or their leading alkaloids (morphine and atropine) are antidotal, and yet, a good resultant action therapeutically comes from their exhibition in combination, or following closely one upon the other, we do see cases in which the action of nitro-glycerine is backed up and made more permanent and efficient by giving these remedies in closely alternating doses, say half hour or hour apart, as in some cases of heart failure, of which I shall presently speak.

In reflex vomiting, in some cases of *gastralgia*, the nitrite of amyl and nitro-glycerine stand us in good stead.

But in *angina pectoris*—true and pseudo—the achievements of nitrite of amyl are most marked—a few whiffs often bringing prompt relief in those emergent cases where great urgency of symptoms demands the most expeditious action. No agent finds its way into the system with such rapidity, except prussic acid. But though slower somewhat in action, nitro-glycerine even here is more permanently beneficial.

In *muscular spasm*, such as the spasm in neuralgic dysmenorrhœa, amyl nitrite has proved most efficient, and I confidently recommend the nitro-glycerine in the variety of spasm which characterizes hour-glass contraction of the womb, especially if it has been caused by the improper administration of ergot. It not only will control the muscular spasm, but sustain the heart, depressed, in all probability, by the hemorrhage present in these cases when the placenta has been detached; and, by the renewed strength thus afforded, enable us to deliver the secundines, and promote uniform and safe contraction of the uterus. These agents have been recommended in the treatment of *eclampsia*, but should not be thus used unless the danger of hemorrhage is provided against by the administration, fifteen or twenty minutes after the amyl nitrite or trinitrin, of a full and commanding dose of ergot.

In the weak heart, incident to opium poisoning, Dr. A. T. Spencer attributed the recovery of the patient to the administration of nitro-glycerine. My own experience in this field is meagre and vague, and does not bear out Dr. Spencer, though, in justice, I would state my confidence in its efficiency.

In the irregular muscular spasm, present in renal and hepatic colic, I believe we have a potent remedy in nitro-glycerine. In some unique conditions of spasm, of the same character, of the stomach and bowels, I know of no remedy so prompt and potent as nitro-glycerine.

I have had obstinate sciatica palliated or temporarily relieved by nitro-glycerine; but, in the case in which I tried it, its curative power was disappointing, nor have I had the benefit from it in spasmodic asthma that I believed I had a right to expect.

Finally, it must be remembered that the repeated use of nitrite of amyl begets tolerance in the patient; that we find a great difference in the susceptibility of different subjects, and that sometimes there may

occur sudden and alarming unconsciousness with marked pallor and feeble or absent pulse. Nitro-glycerine is the one agent that acts more promptly when exhibited by the mouth than hypodermically.

—Upshur, *Va. Med. Monthly*.

TREATMENT OF MALARIA.—Much of our knowledge concerning malaria has been derived from the British surgeons in India. We believe that the following extract from the *Indian Medical Gazette* will be found of interest:

Prophylaxis by quinine (2 grs. daily) was tried during months of June and July and then stopped; and this brings me to the question of quinine in general for fever.

During 1887 and 1888 I had given this drug an extended trial, and then decided in my own mind that its effect was almost nil; but must qualify this by adding, in and during a malarial epidemic. Here the Gurkhas have all had quinine regularly; but the 38th B. I. none whatever. Its effects at such healthy bases as Mandalay, Myingyan, Pokoko, Pagan, etc., dry healthy places where fever is not endemic (though cholera and diarrhœa abound) may be explained in this way. *Post hoc* has been confused with *propter hoc*, the effect of the quinine is not the cause of the improvement, but climate has brought about the result. I had many opportunities of seeing this in 1888, and in and during malarial epidemics, doses of quinine gr. i carefully increased to grs. 120 daily have in hundreds of cases, in my hands, had no effect. In the few cases relatively, where patients have been removed to healthy parts, and have, instead of improving, got worse, it has been found that quinine was inefficacious.

Some opinions of medical officers with respect to remittent fever and quinine have lately been published with a verdict against it, and with respect to intermittent, I think that the natural tendency to cure has been overlooked when quinine has been given.

To take a suppositious case. To any given number of ague cases in hospital, during an outbreak quinine is given, and to a similar number is omitted. What do we find? Precisely the same occurs. Some continue their agues, some stop. In a healthy climate, if the same plan be tried, the majority will stop having fever with or without quinine.

I substitute a tonic mixture of ferri et quin. cit., with tr. nucis vom., or ferri et ammon. cit., with quinine sulph. gr. ½, t. i. d. (In small doses it seems an invaluable tonic.) This tonic effect is, in prophylaxis probably the only result the quinine has, *i. e.*, in obviating such predisposing causes to fever, which have lowered the tone of the system, *e. g.*, anxiety, worry, over-work, diarrhœa, chills, all weakening diseases. Antifebrine or antiphrine are most useful to induce perspiration and to lower temperature in remittent or intermittent fever, but phenacetine seems superior to both, and, indeed, to all other febrifuges, not being so depressant, though sedative and to be more efficacious. Complications have been few. A prolonged debility stage, owing, perhaps, to previous malaria at Kan, with hard work during the late expedition, and a want of fresh milk, was noticed. I add cod-liver oil with good result to the usual remedies.

For insomnia sulphonal acts well, especially where symptoms such as headache and burning pains behind

¹ Surgeon Blancard, I.M.S., has given up to grs. 200 daily during epidemics in 1887 without result.

the eye are prominent symptoms. In these cases I sometimes found the head temperature (lingual) to be somewhat higher than the body (axillary) *e. g.*, lingual to be 99.6°, and axillary 98.8°, *i. e.*, at the same time.

Though dysentery is rarely met with at Fort White, it may not be out of place to mention here a drug that I prefer to ipecacuanha, *viz.*, hamamelis, dose 10 to 40 m. every hour, in 1 oz. of water day and night for an acute case. In the few dysentery cases, occurring in the later stages of remittent fever, I have here used enemata of argnt. nitrat. three times daily as per formula, with excellent results:

R.—Tr. opii..... ℥20.
Liq. argent nitrat (3 grains to ℥j) .. ℥ss.
Mucilag. acac..... ℥ijj.

An interesting record of temperature occurred in the case of Sergeant Lewis, Commissariat Department, who, after three weeks' ordinary quotidian ague, on August 28, 1890, passed through the three stages of ague three times, with a maximum temperature each time of 104° in the burning stage, and on August 29, 1890, twice, maximum first time being 104 and second 106. Phenacetine was the only drug used, the warm stage being hastened as much as possible, shivering being severe, with well heated blankets and hot water bottles, etc. He made an excellent recovery on the river.

In conclusion, I would state that it is most difficult, when working by oneself in a malarial epidemic to remain unprejudiced. If I have weighed facts impartially, or even succeeded in the attempt to do so, I am more than satisfied.

TREATMENT OF ANÆMIA.—The treatment, to be rational, must be based on a sound pathology, and accordingly we have tried to work out the pathology of anæmia, and have shown that anæmia depends upon either defective hemogenesis or increased hemolysis, or upon the two combined. The principles of the treatment must, therefore, follow upon these lines. It will be convenient to consider treatment under three heads—dietetic, hygienic, and medicinal.

In *defective hemogenesis*, whether the anæmia is idiopathic or symptomatic, the diet should be liberal, and contain a considerable amount of animal food. A small quantity of red wine, such as Burgundy, port, or claret, or malted liquor, as light bitter ale or stout, is often useful. The patient should get out into the open air, and take gentle exercise when the strength permits; but in profound anæmia absolute rest is imperative to save the fatty and weakened heart. The patient should be encouraged to take a tepid sponge-bath in the morning, if not too ill. Warm, but not tight, clothing should be worn. Coming now to the medicinal treatment, the following remedies have, to a greater or less degree, the property of increasing the rapidity of, or of perfecting, blood formation, and are, therefore, *hemogenetics*: iron, phosphorus, potash, manganese, arsenic, oxygen, hydrochloric acid (indirectly). Iron is the most important of the hemogenetics; it is a constituent of hemoglobin, the physical condition of which is determined by its state of oxidation. Iron must therefore be regarded as a food as well as a medicine, and it must be borne in mind that the ordinary food taken in sufficient quantity contains all the iron necessary for blood formation in health. The manner in which iron acts when administered as a medicine, appears to be by first stimulating the formation

of new or young red corpuscles, and only later does it go to increasing the amount of hemoglobin in the existing corpuscles. All forms of iron are useful in anæmia, but the bland preparations, and probably ferrous salts, are usually better borne, and can be exhibited in larger doses and for a longer time. The most convenient form is by pills which do not blacken the teeth, allow of easily-adjusted dosage, and have been proved to be efficacious. Disturbance of the stomach and intestine is no bar to the administration of iron, but in these circumstances a bitter and alkali mixture should be given between meals, and the iron in pills with, or directly after, food. Constipation is best combatted by a morning saline aperient, as by one of the natural purgative waters, or a teaspoonful each of sulphate of sodium and sulphate of magnesium (with or without a teaspoonful of chloride of sodium) in half a tumblerful of warm water. Sir Andrew Clark has insisted on the great importance of purgatives in the treatment of chlorosis. Fashion determines, in a great measure, the choice of the preparations of iron employed. At the present time, mainly due to the influence of Niemeyer's teaching, Bland's pill is the general favorite. The reactions which take place in this pill are interesting. It is shown by Mr. Martindale that a 5-grain Bland's pill, according to the additions to the B. P., 1890, should contain about 1 grain of true carbonate of iron, as ferrous carbonate, but it is found that before the pills can be dried and coated quite one half of this has been converted into ferric oxide. Mr. Martindale states that the pill is best made by taking 3 parts of carbonate of potassium and 5 parts of sulphate of iron (crystals), or equal weights of *dried* sulphate of iron and carbonate of potassium. A 5-grain pill made with saccharated carbonate of iron and *syrup*, instead of confection of roses, or a 5-grain pill of dried sulphate of iron, also made with syrup, will contain three times as much iron as Bland's pill. The excess of potash in the latter is not of any therapeutical importance, as potash is so abundantly supplied by the food. Three points in the iron treatment remain to be noticed:

1. The importance of pushing the iron to a considerable quantity when it is tolerated.
2. The value of sunshine and fresh air in aiding its remedial effects.
3. The importance in chlorosis of taking iron for two or three months after apparent cure. The other hematinics are much less active, but are of occasional use.

We now pass on to the treatment of *hemolytic anæmia*. Here theoretical considerations suggest that animal food should be sparingly given, from its tendency to increase hemolysis in the formation of bile. Dr. Hunter has suggested, and put into practice in one case, a purely milk, and a milk and farinaceous diet, with slight benefit, but the case was too advanced for striking results. I feel sure that a purely milk, or milk and farinaceous diet, deserves a trial in pernicious anæmia. Alcohol is not, as a rule, indicated, and when administered should be given in the form of spirit very freely diluted. In the advanced stages absolute rest in bed is necessary, but when the strength permits, sitting or driving in the open air and sunshine are distinctly of benefit in combatting the hemolysis. We must not forget to foster the increased and compensatory hemogenesis which is struggling to maintain the balance. We now come to the medicinal treatment of pernicious and other forms of hemolytic anæmia. Amongst the remedies which diminish blood destruction—*anti-hemolytics*—

may be enumerated arsenic, quinine, mercury, phosphorus, β -naphthol, iodoform, carbolic acid, sulpho-carbolates, menthol.

Arsenic.—Amongst the great gains we have had in the treatment of anæmia in recent years, arsenic certainly stands in the foremost position. It was first employed by Dr. Byrom Bramwell in pernicious anæmia in 1877. Since then abundant testimony has confirmed its value, and its action, if not specific, is at least very striking. Fowler's solution is the most convenient form in which the maximum dose can be given. Beginning with quite small doses (from 2 to 4 or 5 minims) it can, if tolerated, be gradually increased to 10, or even 15 minims, three times a day, and I believe the larger doses are the most successful. It is not, however, always well borne, though I cannot remember to have had a case of pernicious anæmia under my own care in which such was the case. In such cases I should unhesitatingly try it subcutaneously. It is not always of benefit, even when tolerated. As regards its mode of action we have no certain knowledge. It was originally tried from its occasional, though somewhat uncertain, action in Hodgkin's disease, in which it is supposed to exercise some unknown influence on the cytogenic organs. It has been suggested that it acts locally on the mucous membrane of the stomach and intestines (Hunter), I presume as a germicide in preventing the development of ptomaines. In malarial anæmia it probably also acts as a germicide on the *plasmodium malaria* in the blood-corpuscles. Arsenic inhibits the glycogenic function of the liver, and it is possible that it may restrain its hemolytic function. A new light has recently been thrown on the mode of action of arsenic by an interesting observation of Dr. Copeman's. Writing of pernicious anæmia, he remarks: "When a drop of blood was removed from the finger and allowed to fall on a glass slide, then when the edge of the drop had dried somewhat, a cover glass was gently placed upon it, crystals of hemoglobin gradually formed in the film of blood in from ten to forty-eight hours without any further preparation. The only exception to this was in the case of patients who had been treated with arsenic for some days, after which crystals could not be obtained; although, if then the arsenic was discontinued for an equal length of time, they again put in an appearance." It would appear from this important observation that arsenic exercises a direct influence upon the red blood-corpuscles, lessening the vulnerability which we have seen is one of the characteristics of anæmia, especially of hemolytic origin. An interesting point in connection with the administration of arsenic is its occasional effect in causing bronzing or pigmentation of the skin. How this is brought about is a disputed point, but it is probable that it acts by increasing the activity of the pigment-producing tissues. It is possible that the increase of color of the urine noticed in some cases of pernicious anæmia during the administration of arsenic is in some way connected with this action. Quinine is useful in the pyrexial attacks of pernicious anæmia. Phosphorus proved successful in one case recorded by Broadbent, but has failed in others. The evidence regarding mercury is conflicting, but Keys has asserted that corrosive sublimate also increases the number of red corpuscles. β -naphthol has been suggested by Dr. Hunter, and I have added to the list other disinfectants which may be worthy of trial, but have no personal experience of their employment in anæmia.

—Mackenzie, in *The Lancet*.

Medical News and Miscellany.

WISCONSIN has passed a three-board Medical Practice Act.

Two American peddlers are confined in a New York hospital with small-pox.

PHENACETINE being greatly adulterated, physicians should use the pills prepared by a reliable house like Schieffelin's.

DR. BRUBAKER is filling the chair of Therapeutics at Jefferson so acceptably that he will probably become its permanent occupant.

CHINESE dentists lead the world. They possess a powder which they rub upon the gums of an aching tooth; in a few minutes the patient is told to sneeze, and out drops the tooth.

Sei-i-kwai reports influenza as prevailing generally in Japan. The number of cases in Yokohama up to January 3 amounting to 50,000 reported; with a probability of as many more.

A DES MOINES jury has censured the heathen unscientists for allowing a victim to die of typhoid fever. He was a young man of rugged constitution, but the neglect of diet, etc., was too much for him.

A NEW source of arsenical poisoning has been found in the paint with which the walls of a bedroom was covered. The paint was a peacock blue, formed by combining Prussian blue and an arsenical green.

"DOCTOR, I came to see about my brother."

"What is the matter with him?"

"One of his legs is shorter than the other, and he limps. Now, what would you do in a case of that kind?"

"I am afraid I should limp, too."

THE phonograph has entered a new field. An enthusiast has recorded the chattering of monkeys, and, after long practice in imitating the sounds is said to be able to make himself understood by our friends with extended vertebrates. This would tend to prove that the phonograph is the long-sought missing link.

JAPAN is moving for the abolition of "licensed prostitution," as some well-meaning, but bigoted fanatics term the Contagious Diseases Acts. Meantime the prevalence of venereal diseases among the troops in England, that was very small while these Acts were in force, has mounted to 30 and 50 per cent. since their abrogation. In France the ratio of syphilis in registered and clandestine prostitutes was 31 and 239 per 10,000, respectively.

THE MICROBE'S LAIR.—From time immemorial the doctors have told us that carpets in winter are indispensable if we do not wish to die of all sorts of undesirable diseases. But now it is discovered that the carpet is the source of ills almost without number. It seems that it is the lair of the microbe. Its woolen jungles are simply swarming with fierce bacilli, whose tempers are irritated to the last degree by anything, such as brooms and boots, which disturb them. When disturbed they rush out in millions and attack every human being within their reach. The thing that especially infuriates them is dancing. Whenever a carpet is shaken by the feet of dancers the microbes attack the dancers with such ferocity that few of the latter escape without at least a fit of ill-

ness. This is the real reason why young women are so often taken ill with consumption or pneumonia after a ball. Their illness is due to the microbes of the carpet, not, as was formerly supposed, to taking cold. It is clear that we must give up carpets, and as all kinds of woolen, cotton and linen cloth are inhabited by microbes, prudent persons will either clothe themselves with skins or abandon clothing altogether. Indeed, the latter seems to be the only safe course.—*N. Y. Herald.*

LIEBRICH claims to have discovered a true remedy for tuberculosis; differing entirely from Koch's, and consisting of a simple pharmaceutical substance that can be put up by any pharmacist. He says it is cheap, harmless and efficient.

We very much fear that the effulgent rays from Koch's glory have dazzled the eyes of some of his colleagues, and bewildered their intellects.

THE following is the official report of contagious diseases in New York City for the two weeks ending February 21:

	February 14.		February 21.	
	Cases.	Deaths.	Cases.	Deaths.
Diphtheria.....	106	34	115	30
Scarlet fever.....	178	26	185	30
Measles.....	462	19	367	18
Typhoid fever.....	12	5	9	3
Small-pox.....	1	0	2	0
Total.....	759	84	678	81

WEEKLY Report of Interments in Philadelphia, from February 14 to February 21, 1891:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess.....		1	Hernia.....	2	
Asphyxia.....		1	Hemorrhage.....	1	1
Apoplexy.....	15		Inflammation brain.....	2	18
Bright's disease.....	9	1	" bronchi.....	2	8
Burns and scalds.....	3		" bladder.....	1	
Cancer.....	6		" kidneys.....	4	2
Chorea.....	1		" larynx.....	1	
Caries of the spine.....	1		" liver.....	2	
Casualties.....	2	2	" lungs.....	26	21
Congestion of the brain.....	2	3	" pericardium.....	1	
" " lungs.....	3	4	" peritoneum.....	3	2
" spinal.....	1		" pleura.....	1	
Cholera infantum.....		1	" s. & bowels.....	6	2
Cirrhosis of the liver.....	1		" spinal cord.....	1	
Collapse of lungs.....		1	Inanition.....		8
Consumption of the lungs.....	47	8	Jaundice.....		
Convulsions.....	1	13	Mania-a-potu.....	1	
" puerperal.....	2		Marasmus.....		9
Croup.....		11	Measles.....		1
Cyanosis.....		2	Old age.....	22	
Debility.....	3	1	Obstruction of the bowels.....	1	
Diabetes.....	1		Paralysis.....	13	1
Diarrhoea.....	1		Poisoning.....	1	
Diphtheria.....	1	10	Pyemia.....		3
Disease of the brain.....	1		Rheumatism.....		3
" " heart.....	19	2	Sclerosis of spinal cord.....		1
" " kidneys.....	1		Septicæmia.....		2
Dysentery.....	1	1	Softening of the brain.....		1
Dropsy, of the brain.....	1	1	Suicide.....		1
Erysipelas.....	1		Syphilis.....		1
Enlargement of the heart.....	3		Teething.....		2
Fatty degen. of the heart.....	5		Tumor.....		1
Fever, malarial.....		1	Uræmia.....		3
" puerperal.....	1		Total.....	241	162
" scarlet.....	1	7			
" typhoid.....	4	6			
Gall stone.....	1				

THE PREVENTION OF NARCOTIC INEBRIETY.—At a meeting of the American Association for the Cure of Inebriety, held February 18, at the Academy of Medicine, New York, Dr. J. B. Mattison, of Brooklyn, offered the following preamble and resolutions:

WHEREAS, A leading cause of morphinism, chloral-ism and cocaineism is the facility with which mor-phine, chloral and cocaine can be procured from pharmacists; and,

WHEREAS, The refilling of prescriptions containing these drugs is a potent factor in the rise and growth of these diseases; therefore, be it

Resolved, As the sense of this Association, that no retail druggist should sell morphine, chloral or co-caine, except on a physician's prescription.

Resolved, That no prescription containing mor-phine, chloral or cocaine should be refilled, except on the written order of a physician.

These were unanimously adopted, and a committee consisting of Drs. Mattison, Crothers and Wright was appointed to secure legislation along the line of the resolutions.

THE sacrifice of the 150 members of St. Bernard Commandery, Knights Templar, who on January 18 marched to the Emergency Hospital and surrendered under the surgeon's knife portions of their cuticle for the benefit of J. O. Dickenson, recorder of the com-mandery, who had a cancerous sore on the hip, upon which the skin refused to grow, will probably prove futile.

Dickenson's stomach became so weak Sunday in consequence of the large quantities of chloroform taken that he was unable to eat anything, and died February 23.

If you find that a preacher's quite ready to give (Of course for a V or an X—he must live),

His name, and himself, tho' he rue it,—
When the medicine ad, has proclaimed what was sought,
The people catch on to the name that is bought
For the eyes of the world can see through it.

You have only to watch as each fraud comes along
How quickly a certain divine (?) joins the song

Of how many ills it has cured him.
But the power he can exercise, day by day dwindles,
For Germicide, Carbohc Balls and such swindles,
In the eyes of the world, have obscured him.

—*Dixie Doctor.*

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publica-tion, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, sci-entific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ending February 7, 1891.

SAWTELLE, H. W., Surgeon. Detailed as member of Board, Revenue Marine Service, January 26, 1891.

AUSTIN, H. W., Surgeon. Detailed as Chairman of Board for physical examination of officers of Revenue Marine Ser-vice, January 28, and February 6, 1891.

PETTUS, W. A., Passed Assistant-Surgeon. Detailed as Medical Inspector of Immigrants, Port of Boston, Mass., January 29, 1891.

MAGRUDER, G. W., Passed Assistant-Surgeon. Detailed Recorder of Boards for physical examination of officers of Revenue Marine Service, January 28, and February 6, 1891.

KINYOUN, J. J., Passed Assistant-Surgeon. Detailed for special duty at Berlin, Germany, January 26, 1891.

GROENEVELT, J. F., Assistant Surgeon. To proceed to Cape Charles Quarantine for temporary duty, February 7, 1891.

The Times and Register.

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ORIGINAL ARTICLES.		BOOK NOTICES.			
	PAGE		PAGE		PAGE
PERINEAL VS. SUPRA-PUBIC CYSTOTOMY. By H. O. Walker, M.D., Detroit, Mich.	189	Twelve Lectures on the Structure of the Central Nervous System. Edinger	198	Ferric Bromide. Hecquet	201
NATIONAL AND STATE CHEMISTS IN THE COURTS OF LAW. By Clark Bell, Esq.	191	PAMPHLETS	198	Specific Medication. Jour. of Eclectic Med., 201	
NEW OPERATION FOR REPAIR OF LACERATED PERINEUM. By Alexander Duke, F.C.P.I.	193	THE MEDICAL DIGEST.		Drug Treatment of Chorea. Moncorvo	202
MAGGOTS OR SCREW-WORMS IN THE HUMAN NOSE. By R. W. Seary, M.D., Burnette, Louisiana	194	Injection for Fistulas. Bodenhamer	199	American Scientists. Bacteriological World 202	
THE POLYCLINIC.		Formula for Iodoform to be Injected in Septic Cavities. Haynes	199	The Sulpho-carbolates in Incipient Typhoid Fever. Waugh	202
JEFFERSON MEDICAL COLLEGE HOSPITAL:		For La Grippe. Magruder	199	Scarlatinal Diphtheria. Waugh	203
Skin-grafting for Chronic Ulcer of the Leg	194	To Aid Digestion. Hins	199	Antagonistic Action of Cocaine and Chloral. Willoughby	203
Cyst of the Larynx. Solis-Cohen	194	Aristol. Langgaard	199	Points in the Use of Cocaine. Gleason	204
Erysipelas. Wilson	194	To Remove the Pigmentations of Pregnancy. Ther. Gaz.	199	Cure of Chyluria by Thymol. Laurie	204
Inversion of the Uterus. Parvin	194	Iodide of Iron in Lead Poisoning. Lavrand	199	Angina Pectoris. Powell	204
Atony of the Intestinal Walls. Rex	194	Intestinal Antisepsis and Drug Tolerance. Fibré	199	FRENCH NOTES. Roussel	206
Vaginismus. Parvin	195	Blephorospasm. Allport	199	On the Antisudorific Effects of Camphoric Acid and Tellurate of Soda. Combemale	206
Injury in the Abdominal Region	195	Treatment of Gastric Ulcer. Saundby	199	Treatment of Contusion of the Lung. Picquet	206
Aortic Stenosis	195	New Additions to Remedial Agents	200	The Presence of a Potato in the Rectum. Stocquart	206
Acne Rosacea. Van Harlingen	195	Chloral as a Coagulant. See	200	Local Epilepsy. Fibré	206
MEDICO-CHIRURGICAL COLLEGE:		Worldly Wisdom. Med. World	200	Abortive Treatment of Herpes. Leloir	207
Conjunctivitis Neonatorum. Keyser	195	A New Method of Dressing the Chest in Pneumonia, Pleurisy, Pleurodynia, etc. Hunt	200	Death Following Vaccination. Gaucher	207
EDITORIALS.		Intrabronchial Injections in Pulmonary Phthisis. Masini	200	Some Symptoms of Tabes Dorsalis. Marina	207
MOVABLE KIDNEY	196	Fluorescein. Smith	201	Ergotine in Gonorrhoea. Roicki	207
ANNOTATIONS.		Dermatitis Gangrenosa Complicating Vari-cella. Roberts	201	MEDICAL NEWS AND MISCELLANY, 207	
Return of Influenza	198	Treatment of Diphtheria. Van Wyck	201	ARMY, NAVY, AND MARINE HOSPITAL SERVICE	208
Anna Dickinson	198			NOTES AND ITEMS	iv, xii

Original Articles.

PERINEAL VS. SUPRA-PUBIC CYSTOTOMY.¹

By H. O. WALKER, M.D.,
DETROIT, MICH.

IN the choice of method of operation we should be governed, first, as to its safety; second, as to its simplicity of performance; third, as to its rapidity of result; fourth, as to its general applicability in the majority of cases. It is my purpose in this paper to present briefly my views concerning the two methods of entrance into the urinary bladder, viz.: Perineal cystotomy and supra-pubic cystotomy.

An all-wise Providence evidently intended that the bladder should be emptied from its most dependent point.

Our fathers in surgery, guided by this idea, followed it out by attacking the bladder through the perineum for the relief of disease, foreign bodies, or obstruction.

One Pierre Franco, in 1556, from force of circumstance, entered the tenement from above. Others at long intervals did likewise; but all condemned the procedure, largely on account of its high mortality, until Garson and Peterson demonstrated by distention of the rectum the easier approach to the bladder by the sectio alta.

Since the revival of this method, the medical press has teemed with fulsome praise of its brilliant results by many advocates, while few have had the temerity

to say aught, against the tidal wave of opinion, in its behalf.

I am aware that I am in the presence of gentlemen distinguished in this department of surgery who do not agree with my views.

It may seem to you presumptuous on my part to offer counsel from my limited experience, having operated upon but five cases, with but one recovery, and by your indulgence I will report them.

CASE I.—J. B., aged fifty years, first came under my observation in June, 1887, for severe hemorrhage from the bladder, with a history of the trouble of this viscus of three or four months' standing. His previous history was good, with the exception that eight years ago, by a falling trip-hammer, his left arm was severely crushed, which I removed just below the shoulder joint. The hemorrhage was controlled by large doses of ergot. Blood was always present in his urine after this, with evidences of more or less cystitis. The microscope never revealed anything further, but from exploration of the bladder with a searcher I had no doubt about the presence of a growth. Medication and irrigation were of no avail in abating his symptoms. November 25, 1887, as he was gradually failing, he consented that I should operate upon him. At this time reports by various operators were made in the journals, extolling the excellence of the supra-pubic method, especially for the removal of tumors of the bladder. I, therefore, concluded that this was a suitable case for its trial. He entered St. Mary's Hospital, November 28, 1887. December 2, having undergone thorough antiseptic preparation, I made the operation. As I did not have the rubber colpeurynter, I used a soft rubber ice-bag tied on a No. 16 English catheter, and dis-

¹A paper read before the Mississippi Valley Medical Association, October 9, 1890.

tended the rectum with ten ounces of warm water, also injecting eight ounces of boric acid solution into the bladder. The incision was about three and one-half inches in length, in the median line to the symphysis and down to the prevesical fat, which was pushed aside and torn with the finger-nail. The bladder was then seized with two tenacula, and a longitudinal incision made between them. As soon as the boric acid solution had emptied itself, there was no difficulty in feeling a tumor projecting on each side and behind the vesical outlet, having its origin from the prostate, although previously I had not been able to recognize any enlargement of the gland by digital examination of the rectum. The tumor was removed piecemeal with the curette altogether, probably the size of a small egg; it proved to be an epithelioma. The bleeding was profuse, but controlled by a hot boric acid solution. A drainage-tube was introduced, and the bladder sutured with cat-gut, while the abdominal wound was closed with several interrupted sutures of silk. The drainage-tube was of sufficient length to empty into a vessel containing twenty per cent. solution of carbolic acid. December 3, patient passed a restless night, with evident dribbling of urine alongside of the tube. December 4, condition the same, with a temperature of 100°. December 5, temperature 101°; constant escape of urine from the wound, with suppuration along the course of sutures. He gradually grew worse, with a varying temperature of 100° to 104°, until he died December 28. The wound never closed, and the whole lower portion of the abdomen, together with the scrotum, was excoriated as a result of the constant presence of urine. His condition was pitiable, especially the last two weeks that he lived, although extra effort was made to keep him dry with frequently renewed dressings. A post-mortem was not permitted.

CASE II.—A. L., Bohemian, aged thirty-seven years, first came under my care May 1, 1888, with a history of previous gonorrhoeas, and an operation for a stricture in the deep urethra by external perineal urethrotomy, two years before coming to see me. He had a marked chronic cystitis, without evidence of any complication of the kidneys. It was quite evident from his history that he had at the time of the urethrotomy a cystitis which had never gotten well. Although you have observed that my first experience was disastrous, yet, in view of accumulative authority, I again decided to venture the attempt of another supra-pubic cystotomy, as this was certainly a proper case for this method. The operation was accordingly made June 2, after the manner of the case just described. He did fairly well for ten days, although suffering severely from the presence of the tube, when it was withdrawn, and the wound kept open by the daily introduction of a catheter. From this time on he gradually grew worse, and died July 10, evidently by the extension of the disease to the pelves of the kidney, and possibly the kidneys themselves, yet I was unable to verify this, from the fact that I was out of the city at the time, and no autopsy was made.

CASE III.—M. H., aged seventy years, had been a sufferer for over fifteen years from mechanical obstruction of the urine. Saw him for the first time in October, 1888; his prostate was enormously enlarged, and he had all the symptoms common in such cases. Did not see him again until February 6, 1889, in consultation with Dr. Longyear, of Detroit. At this time he was suffering severely from a frequent desire to avoid his urine. The microscope revealed large

quantities of pus, some blood, and epithelial cells, and, from shreds of tissue that he passed, I found them to be portions of a sarcomatous growth. I explained to him the possibilities of a supra-pubic cystotomy, to which he consented. I made the operation February 18, 1889. The colpeurynter was distended with about six ounces of water, and that with difficulty. The bladder I found to be of small capacity, holding but a little more than two ounces of boric acid solution. In cutting through the bladder it gave the impression as if cutting through cartilage. Introducing my finger I perceived that the most of the bladder was infiltrated with the growth, undoubtedly having its origin from the prostate. It was so extensive in character that I did not attempt even to remove any portion of it. A drainage-tube was introduced, through which urine continued to flow until his death, which occurred March 15, 1889. He died from exhaustion, the natural result of the disease, and not in my opinion hastened in the least by the operation.

CASE IV.—N. B., aged fifty-nine years, a fairly-healthy farmer, consulted me, March 14, 1889, for obstruction of urinary flow, necessitating the frequent use of a catheter. Examination revealed a very large prostate, an immense residuum of urine, and a considerable cystitis. He was very desirous that something should be done in the way of an operation, as he had been more or less of a sufferer for five years. Dr. Hunter McGuire's report of excellent results following supra-pubic drainage for the relief of enlarged prostate, encouraged me to make another trial. The patient entered Harper Hospital, March 21, 1889, and was operated upon March 23. For two days he did well, with the exception of constant severe pain and the usual excoriation from the overflowing urine. On the third day he developed a peritonitis, although I am certain that no injury was done the peritoneum at the time of the operation. His condition gradually became worse, and he died March 30. Unfortunately, the friends objected to an autopsy.

CASE V.—A. S., German, aged seventeen years, small for his age, was sent to me by Dr. D. Inglis, January 8, 1890, with a history of painful micturition dating back since he was two years of age. Examination with a searcher revealed a large and hard calculus. Although my previous record was bad, and this seemed a favorable case, I decided to again try the supra-pubic method. He was sent to Harper Hospital, and on January 10 I operated. The usual antiseptic precautions were observed, both preparatory and immediate. He was chloroformed and the rubber colpeurynter introduced into the rectum, and filled with six ounces of warm water, and immediately distending the bladder with an equal quantity of boric acid solution. This amount of fluid was sufficient to indicate the presence of the bladder above the symphysis. The further steps of the operation were similar to the preceding cases, somewhat tedious on account of hemorrhage, and a mulberry calculus was removed, weighing 320 grains. The incision in the bladder was carefully closed with interrupted cat-gut sutures and the integument co-opted with three deep silk sutures, leaving an opening below for a small drainage tube, the ordinary antiseptic dressings were applied and a rubber catheter introduced through the urethra into the bladder for draining off the urine. January 11, during the night, owing to the painful presence of the catheter, the patient pulled it out, and it was quite apparent that the urine was forcing its way through and alongside of the drainage tube in the wound, showing that it had failed to completely

close the bladder. The catheter was again introduced, but its presence was so painful that it had to be removed, and, in spite of all that could be done, the urine continued to flow through the wound. January 12: For the last twenty four hours the temperature ranged from 100° to 102° , indicating that although we had made extra precautions for thorough antiseptis, it was evident that our patient was suffering from septic infection. I mention this fact for the reason that several operators speak of the beauties of healthy urine as an antiseptic, to my mind a delusion that should not ensnare any operator, whether his operation is supra-pubic or perineal. From this time until January 18, the temperature varied from normal to 102° . The whole of the lower portion of the abdomen and scrotum was excoriated, although extra care was taken to keep him clean, yet the parts were constantly wet with urine. January 23, the wound was sufficiently closed, so that the entire urine passed through the urethra. January 29, he left the hospital, wound completely healed, and able to retain his urine for three or four hours.

The perineal method of reaching the bladder is the oldest known to us, although numerous modifications have been made since the hap-hazard "cut on the gripe" for stone was first done. For the removal of stone, litholapaxy undoubtedly stands pre-eminent, and can be done upon subjects from three years of age upwards; yet there are numerous restrictions to this method, such as stricture of the urethra, large-sized stone, an enormous prostate, etc. There can be no question, when cutting has to be done, that the medio-bilateral method presents the best advantages, and I can no better illustrate what I wish to say than by quoting the conclusions of Dr. W. T. Briggs, President of the American Medical Association, in his paper: "The Choice of Operations for the Removal of Vesical Calculi in the Male." 1. That it opens up the shortest and most direct route to the bladder. 2. It divides parts of the least importance. 3. It is almost a bloodless operation. 4. It affords a passage for the removal of any calculus which can safely be removed through the perineum, and is the best route for free drainage. 5. It reduces the death-rate to a minimum.

The treatment of enlarged prostates with cystitis is equally efficacious by the perineal section and drainage, in behalf of which I will report the following case, one of many that I have treated in this manner:

O. P., aged seventy-four years, with a history of prostatic enlargement for twenty years, came under my observation January 7, 1890, through the kindness of Dr. C. Raynale, of Birmingham, Mich. Until about a year previous, he had been able to relieve himself with a catheter, and since that time the desire to void urine had been almost constant, rarely holding it more than an hour. I explained to him the possibilities of a perineal section, and, after mature deliberation on his part, he consented, and I operated January 10, 1890. The principles of modern surgery were religiously observed. After dividing the urethra as far as the prostate, I discovered an unusual median projection, which I divided down to the floor of the prostate. The bladder was thoroughly irrigated with a 1 to 10,000 bi chloride solution. For a drainage I used a 16 common English catheter with about six feet of rubber tubing attached to an abdominal band, care being taken not to permit the point of the catheter to touch the fundus of the bladder; this can be prevented by placing next to the perineum two or three thicknesses of gauze, and then tying the thread guys close to it on the catheter, over which the other dress-

ings are then applied. It is not necessary to remove the dressings for several days, until all danger of sepsis is passed. The tube should be conducted into a vessel containing an antiseptic solution. On the first night following the operation he slept for nine hours, something he had not done for years. The bladder was washed out daily with a boric acid solution through the drainage tube. For the first ten days he remained in bed, after that he was permitted to sit up and take an occasional walk. During March he had an attack of grippe, to which he nearly succumbed. July 15, he came to my office, informing me that he had just returned from presiding over a two days' session of the Michigan Pioneer Society. He still wears a rubber tube which he keeps closed by a wooden plug, removing it every four or five hours whenever he wishes to empty his bladder. I was of the opinion, and so informed him, that it was unnecessary to longer wear it, but as he had such comfort since its use, he refused to dispense with it. It is undoubtedly true that by the supra pubic section we are better able to observe a tumor of the bladder, yet it is quite possible with a searcher to recognize with reasonable accuracy the location and size, if more is needed we can resort to the cystoscope. Further, I see no reason why it is not as easily removed through the perineum as by the high section.

In looking up the literature at my command upon supra-pubic operations since 1883, I find in the record of between three and four hundred operations an average mortality of thirty per cent. A few operators have had a series of cases ranging from three to ten without a death. The most remarkable record in this respect is that of the distinguished surgeon Dr. Hunter McGuire: twenty-one operations with but a single death. When, however, we compare the many thousand operations, by the perineal method, of different collectors, and find a mortality of but five, six, and seven per cent., rarely ever going beyond nine per cent., I must go back to my original propositions and conclude: 1. That it is a safer operation. 2. That it is a simpler operation. 3. That it is more rapid in its results. 4. That it is adapted to more cases than that of supra-pubic cystotomy.

NATIONAL AND STATE CHEMISTS IN THE COURTS OF LAW.¹

By CLARK BELL, Esq.,
President of the Medico-Legal Society of New York.

CHEMISTRY.

CHEMISTRY stands as a base, as a foundation and corner-stone, for nearly all science; on it rests most of the scientific research of our era.

In medicine it lies at the very root. A chemist need not be, and the great chemist doubtless ought not to be, a physician. But no physician should dare to enter even the portals of the temple of medicine, without bathing in the waters and acquiring the mysteries of chemistry.

Chemistry seems to my eyes to be not unlike the angel who rolled the stone away from the sepulchre two thousand years ago, revealing those mysteries which the faithful see in the resurrection, and opening the door and way for the light to come forth.

Chemistry is the prolific mother of all the world's wealth. The earth is her treasure house, the sea her hand-maiden; the air and fire are her willing servants, who come at her beck and go at her nod.

¹ Read before the American Chemical Society, December 31, 1890, at Philadelphia. From advance sheets of *Medico-Legal Journal*.

Steam and heat are only too happy to bear her burdens, and light and electricity are her swift-winged messengers. Her students and votaries live in that charmed life and atmosphere in which she envelopes her mysteries.

To her there is nothing new, but she withdraws the veil which obscures human vision in our century, to her favorites, little by little, as to secrets that she may have blazoned at noonday, in the prehistoric times, to the priests, who then kept up the sacred fires upon the altars within her temples.

To-day she tells us by the spectroscope of the organic constitution of the sun, and speculates upon the gases, and incomparable heat of fires at the center of our solar system, which we see reflected in the organism of the myriads of the fixed stars.

She is greater than fortune, for all the known gems of the world do not equal the contents of a single cabinet, in any one of thousands of apartments in her treasure house.

She has unfolded to our era many of her old truths, which touch on the life, health, and happiness of mankind, and which lie underneath all the commerce, the industries and the arts of the world, and touch on every side the civilization of the age.

She holds the key to all the chambers of knowledge, now sealed to our vision, and it is to her we look, within the next century, for the advancing steps of a higher civilization, depending upon her caprice as to how much farther she may put aside that impenetrable curtain which conceals and hides the unknown and unattainable.

When she speaks as a witness in the tribunals, where life and death and character are in the balance, she is always voiceless, unless absolutely infallible.

If she does not demonstrate beyond question, or cavil, or doubt, she should be silent.

The light from her lamp must be clear, certain, unerring, true, exact, and unquestionable.

She deals not in suspicion, not in conjecture. If in doubt, her evidence must not be taken, nor her voice heard.

If the poison is found, if the analysis detect it, if all proper precautions are taken and the facts remain, then her voice is inexorable because it is truth. It is the voice of nature, the voice of the Infinite.

This highest evidence, this light which science throws upon the labors of the courts, in the administration of justice, deserves in our States that careful recognition which exists in many other countries of the world.

We need such a man at the service of the nation as Dr. Thomas Stevenson is to the Government of Great Britain, who succeeds that eminent man, Dr. R. Swayne Taylor.

We need such a man here as Brouardel is to France, and as the great Orfila was to his own country.

Such a laboratory at Washington, with one of our best chemists at its head, would advance the study of the science incomparably beyond our present ideas and plans.

It would be the center of all the schools, for the study of the science, both at the national Capital and in the States, worthy the nation, and worthy the science.

The administration of justice in criminal trials, notably in cases of alleged or suspected poisoning, deserves the thoughtful attention of jurists, publicists, and legislators.

The duty lies upon every human government organized for the full protection of society, to take every step in its power as well to trace and detect the pris-

oner, as to defend the innocent unjustly accused or suspected.

So far as human punishments go, there is nothing the guilty can suffer, short of actual death, more terrible than that which the innocent endure, who rest through life under the general and apparently well-grounded suspicion and belief of guilt.

The problem in these cases usually is: Was poison administered by the accused? And all will agree with the wisdom of the legal maxim, "better ten guilty ones escape than one innocent suffer."

Cruel as is the fate of the innocent unjustly accused, wrongfully suspected, and resting through life under the suspicion of guilt, it does not touch upon the borders even of that terrible despair endured by the innocent one wrongfully committed and condemned who suffers the extreme penalty of the law.

In a government like that of the United States of America, composed of several States, united as a whole, where the State authorities assume the responsibility for all cases, except such as belong exclusively to the jurisdiction of the general Government, the responsibility is divided between Congress (whose duty is clear in cases within the national jurisdiction as to the trial and punishment of offenders under and against the laws of the nation) and the legislatures of the States, for offences committed against State laws.

The American Union, however, is the guardian, protector, and foster-mother of all the people of all the States, and has the power, the right, and should be quick to assume the duty, of enhancing the public good, even though the effects and beneficial results fell mainly on the poor, the wretched and lowly.

Every criminal judge, prosecuting attorney, and more especially every counsel for the prisoner, in this class of cases, acutely feels the great public need of skilled and competent chemical advice in such cases—advice based upon the most careful analysis, the most critical and crucial tests, with the aid of every appliance known to chemical science.

Every consideration binds our judgment to the decision that this advice should be unbiased, impartial, clear, able, and convincing.

The accused, if poor, are absolutely powerless, under our system, to obtain this evidence.

The Government, if bound to protect the innocent, has taken no steps to discharge this obligation.

The duty of providing a national chemist is too plain to be even challenged. It cannot for one moment be denied.

The only question is, or should be, how can Congress for the nation, and the legislature for the States, best meet this issue and discharge this obligation?

The cost of a careful and elaborate chemical analysis in a poisoning case, where the accused is poor and friendless, is so great that our present system is a practical miscarriage of or denial of justice, when the poor, though innocent, stand accused.

We submit that the plain duty of Congress is to create and designate a public official, to be called the chemist of the nation, whose duty shall be, by his oath of office, to conduct all such investigations, as a careful searcher after the truth, as well for the accused as for the people.

The salary should, of course, be sufficient to command the highest talent in the nation, and the laboratory should be so equipped as to reflect credit on our Government, for its completeness, in every respect, known to the student of chemistry or in contrast with any laboratory in the world.

For the States, it is on too low a plane to discuss such a question as this in its relation to the whole people of a State, and to oppose such a measure in a State upon the only possible foreseen ground, that of its *cost*.

If any State in the American Union is so small, or so poor, as gravely to weigh the cost against public honor and duty, it should consider how it could meet its obligation, by obtaining the aid of a sister State by suitable legislation.

A select committee of the Medico-Legal Society has been considering the subject of recommendations I had the honor to make to that body, and I ask the co-operation of the national association of the chemists of America in a movement so intimately connected with the honor and dignity of the profession you represent and so closely connected with the rights and protection of the people of this country.

REPORT OF THE STANDING COMMITTEE ON NATIONAL AND STATE CHEMISTS.¹

To the Medico-Legal Society—Gentlemen :

The standing committee to whom was referred the recommendations of the President, Mr. Clark Bell, in his inaugural address to the Society, pronounced January, 1887, and subsequently renewed by him at various times, regarding the appointment of a national chemist by the Government of the United States, to be placed at the service of the Government and accused persons in all criminal trials, and for similar action in the States, beg leave to submit the following report :

That we have carefully considered the matter in all its aspects, and the present methods of procuring suitable chemical evidence in criminal trials, both in the State and national courts, and we recommend to the Society the adoption of the following resolutions, which we recommend that the Society submit to the Congress of the United States and the State Legislatures.

Resolved, That the creation of an official, to be known as the National Chemist, in the service of the Government, with a salary sufficient to command the highest available talent, and the establishment of a thoroughly equipped laboratory, which should be at the disposal of the Government or persons accused of crime, or of the State authorities, under suitable regulations, would be a measure that would reflect credit upon the nation, greatly assist the authorities in the administration of justice, and elevate the character and standing of expert testimony in the courts.

Resolved, That the best interests of the people of the various States of the Union would be greatly subserved by creating in each State an official to be known as the State Chemist, with sufficient salary to insure high skill in the discharge of official duty, and by establishing a competent and thoroughly equipped chemical laboratory.

That it be the duty of the State Chemist to act as well for the State and public authorities, as for all accused persons in all criminal trials, at the expense of the State.

All of which is respectfully submitted.

Dated New York, December, 1890.

VICTOR C. VAUGHAN, PH.D., *Chairman*.

H. A. MOTT, JR., PH.D., LL.D.,

Analytical Chemist.

GEO. B. MILLER, M.D.,

CLARK BELL, *President*

Medico-Legal Society, ex officio.

¹This report was approved and adopted by the Medico-Legal Society unanimously on January 14, 1891.

NEW OPERATION FOR REPAIR OF LACERATED PERINEUM.

By ALEXANDER DUKE, F.C.P.I.,
Gynecologist Steeven's Hospital, Ex-Assistant Physician Rotunda Hospital, etc.

I WISH to bring before the notice of my gynecological brethren an operation I have designed for the restoration of a lacerated perineum, easy of performance, and which will, when properly executed, form a good perineal floor, and I might almost say practically a new perineal body. The patient, having been prepared by the usual preliminary steps required for the old operation when under the influence of an anæsthetic, is placed in the lithotomy position, the left index finger being introduced almost its entire length into the rectum; a long, straight double-edged bistoury is made to pierce the tissues *in front of the anus at right angles to the vulva*, and, guided by the finger in the rectum, is made to penetrate the septum for two and a half inches upward, the incision being enlarged laterally to two inches as the knife is withdrawn.

The patient is then turned on her side, and on the points of incision being pressed together, a lozenge-shaped opening will be seen, and, when all sutures required have been introduced and are properly adjusted and approximated, the two cut surfaces are brought into direct apposition. The sutures are introduced by a strong cycle-shaped needle with eye near point, mounted on a handle, strong silver wire being the suture preferred.

The needle is introduced at edge of incision, and guided by a finger in the rectum, is made to travel *under* the cut surface to its full depth above, describing the arc of a circle; and, on point of needle appearing *directly opposite*, it is threaded with suture and drawn through. On the ends of this suture being drawn together with the fingers, a good idea can be formed of how many additional stitches may be required. When all considered necessary have been inserted and approximated, a finger of each hand passed into rectum and vagina will at once recognize the gain in thickness of septum, the external tissue being pushed fully an inch forward from anus, and forming a thick and solid perineal body.

The incision being a deep one, on union taking place between the raw surfaces, a considerable amount of support must be afforded in cases where a pessary is required, or where there is much tendency to prolapse of uterus or vaginal walls. My experience of the operation, though up to the present limited, has satisfied me with the results, and there being *no loss of tissue whatever*, should the operation fail, it cannot add any difficulty to a subsequent one.

Even should the perineum be lacerated to verge of anus, what I describe can be done. I find that leaving the sutures for ten days is generally sufficient, but if I am in doubt as to the union being strong, I cut the wire, but leave it in situ for a day or two longer, thus affording some support, and relieving the strain on the edge of suture holes, and I also support the parts by long strips of adhesive plaster carried from hip to hip over new perineum.

The wire should be stout and not too tightly twisted. My friend, Dr. More Madden, has kindly given my operation a trial, and was much pleased with the results, especially in one of his cases where the old plan of operation had been tried previously, but failed, owing to the patient's poor state of health and want of healing power. The advantages of my plan of operation are briefly these :

1. The simplest of performance as yet proposed, no

danger of hemorrhage, the surface when dry being brought together.

2. No danger of sepsis, as the incision is not open for the admission of any discharge from either vagina or rectum during healing process.

3. No loss of tissue, and consequently no harm done should the operation fail.

MAGGOTS OR SCREW-WORMS IN THE HUMAN NOSE.

By R. W. SEARY, M.D.,
BURNETTE, LOUISIANA.

ON August 8, 1890, I was called to see an aged negro woman who complained of a severe headache, especially in the forehead. I prescribed for her, and for several days afterward she said that she felt entirely well. On August 20 afterwards I was called again to see her, because of hemorrhage from the nostril. I prescribed astringents, which stopped the flow for some hours, when it would recur again. The flow continued at intervals until the 22d, when I was shown in the evening some ordinary maggots or screw-worms, which I was told had been blown from her nose. I at once began to use washes of different kinds to get rid of the pests. No worms were gotten out by the first wash; but after using several kinds of washes next day one or two passed out in the water. They would crawl out, and be coughed or sneezed out, mostly at night. About the 25th I had a consultation with another doctor, and we plugged the posterior nares, and then with a large household syringe injected a quart of medicated water, allowing as much of it to be retained at one time as possible. The next day I found the right side of the right nostril swollen, and the skin had a swollen, shining appearance, as if there was something beneath it separating it from the deeper-seated structures, and pushing it out. On the 27th I could see this shining smooth skin moved up and down frequently, and a small opening with the head of a maggot in it. I at once made a large opening, and extracted sixty-two large full-grown maggots or screw-worms, counting them as they were extracted. There were some removed from an inch beyond the projecting portion of the nasal bone. I removed as many as I could reach by a small instrument inserted under and around the bone. I used medicated washes four times daily, and gave opiates to mitigate the excruciating pain, and insisted on the frequent giving of nourishing food.

About September 2 there passed several maggots of a dark reddish form, as though they were going into a stage of chrysalis. The first maggots passed out were small, and of a whitish color; later they were much larger and of a reddish color; later still several of a dark red or brown color were passed, and then they ceased to be extracted. The pests were sneezed out, coughed up, and passed by the bowels, and about two hundred in number. There was a low, protracted fever for some weeks, after which the patient recovered more rapidly, and for three weeks past has been able to perform most of her usual work. Carbolic acid, corrosive sublimate, sulphur and turpentine, are amongst the most valued washes. Have found that by extracting as many as possible, then injecting turpentine and carbolic acid and using sulphur ointment they can be cured in horses and other animals. These worms were most probably caused by a fly depositing its eggs, and these eggs or maggots if not removed or killed would continue their species until they killed the animal in which found. They have injured many animals in East Carroll Parish, and may infect any part of the body.

The Polyclinic.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

THE case of skin-grafting for chronic ulcer of the leg, previously reported in this journal, was again presented to the class, to show the good results from this plan of treatment. The grafts had all "taken" nicely, and the reparative process was going on rapidly. The whole surface was washed again, with a sterilized salt solution, and an antiseptic dressing applied.

Dr. Solis-Cohen presented a case at the clinic. The patient, a woman, had observed a lump on the right side of her neck, which had been gradually increasing in size; she also complained of hoarseness. Dr. Cohen said at first sight it might be taken for an enlarged thyroid gland, but on close examination it was observed to be situated higher up on the neck, and more to one side than the thyroid gland. He rather held to the opinion that it was a cyst of the larynx, and the hoarseness of which the patient complained was due to a reflex trouble from pressure of the cyst on the recurrent laryngeal nerve. For the hoarseness the patient was ordered:

R.—Tr. benzoini comp.,
Tr. opii camphorat..... āā ʒss.
Aquæ ferv.....q. s.

M.—S. To be used as a gargle.

And a 50 per cent. ammoniated ichthyol ointment to be thoroughly rubbed into the tumor.

Dr. J. C. Wilson recently presented a case to the class; the history was as follows: The patient had had several chills, followed by a tingling sensation and swelling on the right side of the face, attended with a peculiar rash or redness of the skin. The patient had a slight fever. It might also be stated that the swelling was particularly noticeable about the eye, the eye being partly closed. Evidently the nature of the malady was that of *erysipelas*, and was treated accordingly:

A simple ointment of the oxide of zinc in an eighth part of the oil of sweet almond, as an external application; and internally:

R.—Misturæ ferri et ammonii acetatis.
S. A dessertspoonful four times daily.

Also as a local application:

R.—Acidi carbolici..... gtt.j.
Aquæ..... f ʒj.
M.—S. Applied to the affected part.

Prof. Parvin, in lecturing on inversion of the uterus, said the difficulty in replacing the uterus by pushing up the fundus first was that you had four thicknesses of the uterus to get through the point of constriction. He advised, by lateral manipulation, to push up that part first which came out last. Replacement can frequently be effected with White's uterine repositior.

Dr. Rex recently presented a case at the clinic, giving the following history: The patient, a child three years of age, was brought to the clinic to be treated for enlarged abdomen. The trouble had existed for eight months. There was extreme constipation—it was only when some purgative medicine was given that an evacuation of the bowels could be produced—the abdomen was uniformly distended, and gave tympanitic resonance on percussion, especially on the line of the colon and at the sigmoid flexure.

while, if it were a case of ascites, there would be dullness at the flanks and tympanitic resonance above, owing to the floating of the intestines above the fluid. A diagnosis was made of atony of the intestinal walls. The following treatment was prescribed :

R.—Ext. ergotæ fl gtt.ij.
Tinct. belladonnæ..... gtt.j.
Syr. zingiberis..... f3j.

M.—S. Given three times a day.

The belladonna to be gradually increased until its physiological effects are produced. The patient was also to have a cold douche applied to the abdomen every morning, for the purpose of causing contractions in the muscular walls of the intestines by the shock thus produced.

Prof. Parvin, in treating a case of vaginismus, advised the use of dilators for an hour or two each day, the parts first to be anæsthetized by the application of cocaine.

A case was presented at the clinic giving the following history : One year ago the patient received an injury in the abdominal region, and now complains of distressing feelings in the epigastrium; occasionally vomiting blood; poor appetite; bowels constipated; clay-colored stools; has had several attacks of jaundice; patient had had "chills and fever;" the urine was normal; tongue large and flabby, showing the marks of the teeth. The liver dullness was markedly increased, thus showing great enlargement; hard, irregular masses were felt over its surface; there was no tenderness on pressure; the patient was put on small doses of Fowler's solution, with frequent blistering over the liver, and :

R.—Liq. iodi comp..... gtt.ij.
S. Three times daily.

In a case of aortic stenosis, the patient giving a history of having had rheumatism, the following treatment was advised :

R.—Liq. potassii..... gtt.x.
Tinct. verat. viridis..... gtt.x.
Syr. zingiberis..... f3ss.
Aquaë q. s. ad f3j.

M.—S. A teaspoonful ter die.

In a case of acne rosacea, Dr. Van Harlingen recommended the following as a local application :

R.—Sulphuris..... f3j.
Pulv. camphoræ..... gr. xv.
Pulv. tragacanthæ..... gr. x.
Aquaë calcis,
Aquaë rosæ āā f3j.

M.—S. Apply to the affected parts.

MEDICO-CHIRURGICAL COLLEGE.

CONJUNCTIVITIS NEONATORUM.¹

AN inflammation of the conjunctiva of new-born babes is caused by contact with the acrid secretions of the vagina, in the course of delivery, by dirty surroundings and by other causes.

The disease begins with an excess of tears; the child begins to fear light, and in a few days these symptoms are followed by a creamy discharge, which is like soft pus. The lids become very much swollen, puffy and bluish red.

If not stopped the inflammation will extend to the bulbar conjunctivæ, and interfere with the nutrition of the cornea, which will finally soften, inflame and slough away, and allow the aqueous humor to flow out, throwing the iris forward, forming synechia.

The discharge which occurs from the eye is very contagious, and readily infects a healthy eye, so that great care must be observed in disinfecting the hands, instruments, etc., which may have come in contact with the discharge. It is well to inform the nurse of the possibility of infection, so that she may avoid such complication.

To prevent this disease, it is the duty of the physician, on the birth of the child, to thoroughly wash the eyes, and, when inflamed, to drop into them a few drops of a solution of 10 grains of nitrate of silver to an ounce of water, as recommended by a French prize essay on this subject.

When the disease has already developed, the first thing to be done is to wash the eyes thoroughly with a solution of corrosive sublimate, 1 to 5,000, and continue daily, or the eyes should be washed every half hour, or every hour, with a saturated solution of boracic acid.

If the disease has manifested itself violently, the eyes should be washed every half hour, using alternately the saturated solution of boracic acid and solution of $\frac{1}{2}$ to 1 gr. of nitrate of silver to the ounce; or, instead of the boracic acid, the corrosive sublimate water may be used. When the secretion of pus begins to lessen, the washing may be made less frequent, and discontinued on the complete disappearance of pus.

Should the cornea be attacked, and show signs of sloughing, either a mydriatic or a myotic must be used, according to whether the slough is nearer the center or periphery of the cornea, in order to prevent a synechia. The myotic eserine should not be used in a solution stronger than $\frac{1}{4}$ to $\frac{1}{2}$ gr. to the ounce, as iritis may arise from use of a stronger solution in so small a child.

A compress bandage should never be used in these cases, as it prevents the escape of the pus, which should be removed frequently from the eyes. In washing the eye, when the cornea is affected, care should be exercised to avoid pressing the ball, as it may precipitate the rupture of the softened cornea, the very thing we are striving to prevent. When sloughing does occur, even to half of the cornea, it may fill in; but the new tissue will always be opaque.

Following sloughing of the cornea we may have shrinkage of the ball, or it may enlarge and form a staphyloma, which is sometimes so large as to prevent closing of the lids, in which case operative interference may be necessary, such as enucleation, abscision, or evisceration. If it is possible to avoid it, the ball should not be removed; but should be allowed to remain until the surrounding structures have fully grown. Should it be removed, these shrink so as to prevent the accommodation of an artificial eye of the proper size, in the growth of the child.

In all these cases, and in cases of severe purulent conjunctivitis, care must be used when the lid is to be turned, as it sometimes persists in remaining turned out, notwithstanding the best efforts of the physician to reduce it. When this occurs, and the lids are very or extremely tense from the swelling, the upper lid may be slit up to relieve the great pressure upon the cornea, which may cause sloughing of the cornea. After the conjunctivitis has passed away, this can be repaired by freshening the edges, and bringing them together by sutures.

In the examination for the causes of blindness, it is found that this form of inflammation leads all the rest, being first on the list, with conjunctivitis granulosa second, and glaucoma third.—*Keyser.*

¹ Abstract of Clinic delivered February 11, 1891, at the Medico-Chirurgical College.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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MOVABLE KIDNEY.

EBSTEIN makes a distinction between dislocation of the kidney, that has become fixed in its abnormal location, and movable, or migratory kidney. The former has never been diagnosticated during life, excepting when the anomaly has been revealed after the abdominal cavity has been opened. An examination, per rectum, by Simon's method, might reveal the dislocation, but the circumstances that would occasion this severe and rarely-employed procedure for such a purpose can hardly be imagined.

Rayer receives the credit of having directed attention to movable kidney. Since his time (1839) many writers have devoted attention to this subject; among whom may be mentioned Mosler, Steiger, Trousseau, Rollet, and Guéneau de Mussy.

Dr. W. W. Keen presented a paper to the American Surgical Association last May, upon Nephrorrhaphy, which now lies before us in the form of a reprint from the *Annals of Surgery*. In this paper the author makes a distinction between movable and floating kidney, claiming that these conditions can be sharply distinguished, anatomically and morphologically. The term floating kidney he limits to those cases in which there is a mesonephron, formed by a reduplication of the peritoneum; and the kidney, therefore, is wholly enclosed in the peritoneal cavity; bearing the same relation to it as do the coils of the small intestine. The movable kidney is still outside the peritoneum, and moves only in the retro-peritoneal space, within or without the fatty capsule. He believes that the floating kidney is always a congenital abnormality, as simply movable kidney is always acquired.¹ But he modifies this statement by adding that he has never seen a mesonephron during opera-

tion; and yet, in two of his four cases, the kidneys readily dropped from gravity to the right iliac fossa and to the left of the mesial line. The range of motion, therefore, is the same in both classes.

The frequency of movable kidney he believes to be greater than is usually thought. In fact, it is more frequently detected clinically than pathologically. While in 3,658 autopsies at the Berlin Charité, movable kidneys were found five times (1 in 732), and Newman gives eleven cases in 11,000 autopsies; Rollet found twenty-two accurately determined cases in 5,500 patients at Oppolzer's clinic, and Oser, of Vienna, declares that one-tenth of parous women are so affected.

All authorities agree that women are vastly more frequently affected, and that the right kidney is most frequently movable, in the same ratio, about seven to one.

Among the causes, Keen enumerates traumatism and pregnancies. Many cases occur in men and in unmarried women. The loss of perinephritic fat is attributed a high causative influence by Ebstein, but Keen says that in all his cases there was plenty of this fat. But when the kidney has once left its proper habitat, there may be a deposition of fat in the place left empty.

The discomforts arising from a movable kidney he pronounces many and decided. He says: "There is much dragging pain, with a sense of weight in the loins. Gastric disturbances are common. Constipation, fetid breath, sometimes vomiting, are all noticeable. Not uncommonly there will be palpitation or other cardiac symptoms. Disturbance of the generative organs in women is very frequently associated with movable kidney, and, whether as a cause, consequence or coincidence, it is very certain that the majority of women suffering from this disorder are of a highly neurotic constitution. The discomforts are very great, and the pain may be so excessively severe and prolonged as to interfere with all other occupations, and practically to make life almost unendurable. In women, the pain is nearly always much greater during menstruation. The mental annoyance, also, is by no means a slight factor in the problem." With the last sentence we heartily coincide. The consciousness of the possession of an abdominal tumor is calculated to induce a serious disturbance in the nervous state of most persons. Many of the symptoms given are not direct consequences of displacement of a kidney, and their reference to this cause is a poorly-supported inference. Gastro-intestinal and genital disorders occur with too great frequency to be attributed to floating kidney, so far as to justify operation. The only symptoms that can be held to be certainly due to this affection are evidences of disease in the displaced kidney itself, pain, inflammation, etc., and those produced on the mind of the patient by the consciousness of her malady.

Among the evils that threaten the patient's life, and due to the displacement of the kidney, he enumerates abscess of the kidney, hydro-nephrosis, albuminuria and uremia from twisting of the ureter. Ebstein speaks of attacks of local peritonitis, and of symptoms due to incarceration of the kidney.

¹In any case, it is probable, as Ebstein suggests, that there is existent a congenital abnormality that predisposes the individual to this affection; such as looseness of the perinephritic connective tissue, undue length of the renal vessels, flexibility of the peritoneum and its loose attachment to the abdominal wall, etc.

The diagnosis he considers easy, after attention has been called to the possibility.

"Given a movable tumor in the flank, which can be displaced into the iliac fossa or up to, or even beyond, the middle line; which can be pushed back into the position of the kidney; and which has about the shape and size of a kidney; and the diagnosis is clear.

"Percussion of the loin will sometimes assist, although this is not to be implicitly relied upon. At best, the limits of the renal dullness are not any too well defined when the kidney is in place; and the tympanitic sound discovered when the kidney has fallen forward or downward, is not so clearly marked as to render it a thoroughly reliable symptom. The resistance to bi-manual examination afforded by the presence of the kidney, and the absence of this resistance when the kidney is displaced, is a much more reliable symptom. The bi-manual examination is best made if the abdominal hand takes advantage of expiration to depress the abdominal wall, retains the advantage so gained during the next inspiration, and follows it up by still further depression during the following expiration. The legs should be flexed to relax the abdominal wall.

"The size and shape of the tumor is a reasonable guide, and sometimes, though not frequently, the hilum can be made out, and pulsation of the renal artery felt.

"Of course, an examination of the uterus and ovaries should be made, so as to determine any possible connection of such abdominal tumor with the generative organs.

"The urine is generally normal, though not uncommonly it may contain albumin. If the albuminuria is persistent, it is generally due to other causes."

The bandage and pad should be tried before operation is undertaken. Dr. Keen prefers the pads devised by Dunning and Newman. Repeated pregnancies have been known to fix the kidney. Nephrectomy is sometimes justifiable—when the kidney cannot be replaced; when the organ is also diseased so as to justify its removal apart from the displacement; when nephrorrhaphy has failed, and the symptoms are sufficiently grave.

The operation of nephrorrhaphy he describes as follows:

"The operative procedure is first the usual one to expose the kidney. The patient is laid upon the sound side, and an oblique incision is made between the last rib and the crest of the ilium, beginning over the outer border of the quadratus lumborum. Rarely, if ever, will a rib have to be resected to gain room. The edge of the muscle being recognized, the perinephric fat is found immediately at its outer border. This fat having been cut or torn through, the kidney may be seen at once. If it is a movable kidney, but not displaced too far from its normal position, the movement will be seen to be synchronous with the respiration, and may be very wide in extent. In that case the kidney moved up and down with each respiration quite as freely as the liver ordinarily does. But if the kidney be far away from its normal position, it will not be seen when the per-

inephric fat is torn through, but must be sought for, not only by the finger in the wound, but also either by the hand of the operator, or of an assistant, on the anterior abdominal wall, in order to push the kidney back toward its normal place.

"At this stage of the operation, in order not needlessly to invade the peritoneal cavity, it is very important to be able to distinguish between the liver and the kidney, either of which may present itself opposite the wound. The peritoneum may be opened either intentionally or by accident.

"To avoid a similar accident, I would suggest that in every case, after tearing through the fat, so soon as the operator reaches a firm organ, which he believes may be the kidney, he should first observe its color. If it be the liver, this would be a dark-brown; if the kidney, a lighter blue-black. Next he should sweep his finger toward its upper border. If it be the kidney, he will very readily be able to discover the upper border.

"No attempt should be made by an assistant to replace the kidney by pressure through the abdominal wall until after the perinephric fat has been torn through.

"In doing the operation, it is customary and desirable to place a pad or pillow under the patient, in order to widen the space between the twelfth rib and the crest of the ilium. But care should be taken that this pad is not so placed as to press the liver down opposite the opening in the loin, and so promote the very accident of which I have just been speaking.

"In two cases I have found it difficult to push the kidney back opposite to the incision, but have succeeded in getting hold of the kidney by the following manœuvre: An assistant steadied the kidney, which I could just touch by the tip of my finger in the iliac fossa. I then passed a tenaculum along my finger as a guide, and harpooned the kidney by it, and drew it up to the opening. I then seized it anew with a volsella. In two cases of nephrorrhaphy and in one exploratory operation, the amount of traction by the volsella was such that the kidney substance was torn; but I never saw any ill results from it—not even any blood in the urine.

"The kidney being now held in place, four methods have been used for its fixation:

"1. The sutures may be passed through the adipose capsule alone.

"2. They may be passed through the fibrous capsule of the kidney itself.

"3. They may be passed through the parenchyma of the kidney.

"4. The fibrous capsule may be stripped off the kidney, in order to obtain a raw surface of renal tissue, by means of which the adhesions, it is believed, would be firmer. The sutures are then passed through the parenchyma and capsule just inside the border of the raw surface.

"So far I have had good reason to be entirely satisfied with the third method, which I have adopted in all four cases.

"The place where the kidney shall be anchored should correspond nearly to the normal physiological

position, but it will probably always be a little further down. Both extremities of the kidney should be fixed in order that it may not be pendent from one extremity only, and thus be liable to torsion and other movements. I have ordinarily passed six sutures, one at the upper end and one at the lower end, through both lips of the wound, penetrating through the kidney substance en route. Two other stitches I have usually passed between one lip of the wound and the anterior part of the kidney. A curved Hagedorn needle in Abbe's needle holder I have found to be best. The stitches should always pass through the muscular aponeurosis at the edges of the incision, in order to get a firm hold. I have used silk ligature in all my own cases and it has answered admirably. I have little doubt as to the desirability of leaving them permanently, but in doing so we must remember the large number of silk ligatures that have given rise to subsequent trouble, especially in abdominal surgery. Hence, it is important, I think, that the silk should be as fine as possible, but thick enough to be strong.

"The kidney having been fixed in place, the best plan is to leave the wound open, and dress it with ordinary bichloride or double cyanide gauze. One source of discomfort is the pain in the hip and groin, attributed to injury of the ilio-hypogastric nerve. As the nerve is entirely one of sensation, if I again find it in any path and exposed to probable injury, I should divide and exsect two or three inches of the nerve.

"The after treatment is simple, and similar to that ordinarily used. The patient should not be allowed to sit up for at least four weeks. In case of relapse, a second or third nephrorrhaphy should be done before the question of nephrectomy is raised. When the patient begins to go about, a snug-fitting elastic bandage, with or without a pad, should be worn for several months."

As to the ultimate results, four deaths have occurred in one hundred and thirty-four operations. The fatalities were due to: fastening the stitches around the rib; an unrelieved ileus; a stitch passed through an embolic infarct, causing septicemia, and suppuration, due to the operation. These fatal cases were respectively done by Ceccherelli, Hahn, Langenbuch and Tait. Appended to his paper is a tabular statement of one hundred and thirty-four cases, of which one hundred and four were given in such detail as to allow of analysis. Of these, sixty-seven are pronounced cured, fifteen improved, and twenty-two failed. The best results followed when the kidney substance was sutured; the cures reaching 66 per cent.

FROM the following extract, taken from the *Texas Courier-Record of Medicine*, we judge that the life of a medical editor in Texas is not all a "dull, demnition grind," but that a spicy variety is occasionally experienced:

"The Lord is not on Daniel's side this time. The lion has been permitted to chew Daniel in a most gratifying manner to such a sinner as I am. He deserved a munching, and it required a lion to masticate him in such a dignified, kingly way as Dr. Ghent has done."

Annotations.

IT will be seen by the weekly report of interments that there is some foundation for the belief that influenza has returned. In the last week in February there were forty-four deaths from pneumonia and seventy-five from other pulmonary affections; but the moderate mortality from heart and kidney diseases, old age, marasmus, etc., shows the difference plainly.

TIME was when Anna Dickinson was a power in the land. People crowded to hear the gifted woman who lifted up her voice for the slave; and when, a little later, men were needed to uphold the Union cause, she was not the least among those whose words helped to decide the doubtful and confirm the faith of the timid. Now, broken in health, deserted by fortune, her mind has given way, and Anna Dickinson is an inmate of a public insane asylum. What an outrage, that this woman's services should go unrewarded! "The ingratitude of republics" is based upon forgetfulness, and as each citizen pursues his own objects, public obligations toward individuals are apt to be neglected. We doubt if in the whole grand army of pensioners there is one who would object to seeing Anna Dickinson's name enrolled beside his own. Had this been done years ago the sad fate of this noble woman might have been averted or hidden.

Book Notices.

TWELVE LECTURES ON THE STRUCTURE OF THE CENTRAL NERVOUS SYSTEM. For Physicians and Students. By DR. LUDWIG EDINGER, Frankfort-on-the-Main. Second Revised Edition, with one hundred and thirty-three Illustrations. Translated by W. H. Vittum, M.D., St. Paul, Minn. Edited by C. E. Riggs, A.M., M.D. F. A. Davis, Philadelphia and London, 1890. Cloth, 8vo., pp. 230. Price, \$1.75.

These lectures are intended as an introduction to the study of the structure of the central nervous system. Many modifications have been made since the first edition appeared in 1885, following the important advances made in this department. Much material upon the comparative anatomy of the nervous system has been introduced.

Pamphlets.

Abdominal Surgery. By Dr. J. R. Haynes.
Suppurating Ovarian Cryst. Ovariectomy. Recovery. By F. L. Haynes, M.D. Reprints from *Southern Calif. Pract.*
Irrigation of the Puerperal Uterus; its Uses and Dangers. By F. L. and J. R. Haynes. Reprint from *Am. Jour. Obstet.*
On the Treatment of Piles by Injection of Carbolic Acid. By F. L. Haynes, M.D.
Supra-pubic Lithotomy. By F. L. Haynes, M.D.
Gynecological Memoranda. By J. B. Haynes, M.D. Reprints from *South. Cal. Pract.*
Intubation vs. Tracheotomy. By Dr. E. E. Montgomery. Reprint from *Annals of Gynecology and Pediatrics.*
A New Operation for Spasmodic Wry-neck. By W. W. Keen, M.D., Philadelphia, Pa. Reprint from *Annals of Surgery*, January, 1891.
Nephrorrhaphy. By William W. Keen, M.D., of Philadelphia, Professor of Surgery in Jefferson Medical College. Reprint from *The Annals of Surgery*, August, 1890.
Resection of the Optic Nerve. By L. Webster Fox, M.D., Philadelphia. Reprint from the *Medical and Surgical Reporter*, February 7, 1891.

The Medical Digest.

INJECTION FOR FISTULAS.—

R.—Acidi carbolici gr. xxv.
Glycerini ℥ij.
Aquæ dest. ℥iv.

M.—

—Bodenhamer, *Med. Record*.

FORMULA FOR IODOFORM TO BE INJECTED IN SEPTIC CAVITIES :

R.—Iodoformi ℥iv.
Etheris ℥j.
Glycerini ℥ij.—M.

—J. R. Haynes.

FOR LA GRIPPE.—

R.—Liq. ammoniæ acet. ℥j.
Tinct. opii ℥ij.
Tinct. aconiti ℥xx.
Tinct. gelsemii ℥ij.
Sp. chloroformi q. s., ad. ℥ij.

M.—S. Teaspoonful every one to three hours.

—Magruder, *Texas Courier Record*.

TO AID DIGESTION.—

R.—Acid. nitromuriat. dil. ℥iii.
Pepsin. sacch. ℥vi.
Bismuth. subnit. ℥iv.
Ext. fld. nucis vom. ℥i.
Hydrastis ℥iii.
Glycerini ℥vi.
Aquæ q. s. ℥viii.

Sig. Two teaspoonfuls with every meal.

—Hinz, *Ther. Gaz.*

ACCORDING to Langgaard, the following general rules should be observed in prescribing aristol :

"All substances are to be avoided, for which iodine has any chemical affinity,—thus embracing : Hydroxides, carbonates, all the alkali metal, ammonia, metallic oxides, starch, corrosive sublimate, etc., etc. Hence the exhibition of aristol will have to be confined to the following forms : Dry powder; or ethereal or oily solutions; or with collodion, lanolin, or vaseline, as vehicles.—*Ther. Monats.*

TO REMOVE THE PIGMENTATIONS OF PREGNANCY.

—In the *Journal de Médecine de Paris*, the following ointment is recommended to be rubbed into the affected parts twice daily to remove the pigmentations which so often disfigure pregnant women :

R.—Cocôa butter,
Castor oil. āā ℥ii¼.
Oxide of zinc gr. v.
Yellow oxide of mercury gr. ii.
Essence of rose, enough to perfume.

—*Ther. Gaz.*

IODIDE OF IRON IN LEAD POISONING.—It is stated by M. Lavrand, in a Lille medical journal, that he has found iodide of iron, in the form of pills, as prescribed in the French Codex, very efficacious in treating the lead poisoning which occurs amongst workmen employed in white-lead manufactories. Sometimes he gives the iodide of iron by itself, at others he combines with it phosphide of zinc. Under this treatment workmen who had already commenced to show signs of lead poisoning were enabled to continue their occupation; their general health also improved, and the amount of hæmoglobin increased.—*Lancet*.

INTESTINAL ANTISEPSIS AND DRUG TOLERANCE.—Every observer has from time to time remarked the intolerance manifested against some drugs, the administration of which, while absolutely necessary for the amelioration or cure of the patient's affection, is rendered difficult owing to this intolerant idiosyncrasy. M. Féré finds that, by practising intestinal antiseptics by means of such substances as naphthol, patients who were intolerant of small doses of bromide of potassium or borax in epilepsy will, when naphthol and salicylate of bismuth are exhibited at the same time, bear perfectly well as much as seventeen grammes a day of bromide without any inconvenience. The eczema and psoriasis which sometimes appear in the train of borax will also disappear if the intestines be rendered antiseptic. M. Féré adds that it is quite possible that intestinal antiseptics may be found to check intolerance of drugs other than those directed against epilepsy.—*Lancet*.

BLEPHORASPM.—Some three years ago it occurred to me to attack these troubles in a similar manner to a spasm of the sphincter ani, viz., by stretching the fibres of the orbicularis. This was accordingly done at my service in the University Free Dispensary in the presence of my class of students. It proved so satisfactory that I have many times performed the procedure during the past three years, both at the dispensary and in my private practice. Indeed, it has become a routine practice with me to always stretch the orbicularis in obstinate and intractable spasm, and it rarely fails to yield an excellent result. The procedure is simple enough and consists merely in placing a strong, short speculum between the lids and opening its blades until it is deemed that the muscle is thoroughly stretched. The speculum is then firmly set and allowed to remain in its expanded condition for about five minutes, when it is removed.—Allport, *Am. Jour. Ophth.*

TREATMENT OF GASTRIC ULCER.—As a general rule, I order at first half an ounce of milk and lime water every hour as the only food, with the sulphate of iron and magnesia mixture in purgative doses three times a day. Ziemssen and Leube use sulphate of soda or Carlsbad salt in purgative doses, with the object of removing all remains of food from the stomach; but I use this mixture simply to remedy the anæmia and constipation so generally present. If hæmatemesis actually occurs, or the patient is admitted with a very recent history of it, I order ice to suck, and feed per rectum for a day or two, and then proceed as before. When, as usually is the case, vomiting and pain cease, under this treatment I double the allowance of milk and lime-water, then change the diet to soft bread and milk, getting on through pounded chicken and custard and eggs to ordinary diet as rapidly as possible. The good results are attested by the table. It may be objected that these cases are not cured, but that there is only a temporary remission of the symptoms. I do not think this is true, although one case did undoubtedly relapse three times, as all these patients were made out-patients under me, and attended for a longer or shorter time, continuing to take the medicine. Had they relapsed it is most probable they would have reapplied for admission to this hospital, where, according to the rules, they would have been placed under my care. It may be thought that there is danger by this plan of exciting hemorrhage or causing perforation, but I think this fear is sufficiently answered by the record.

—Saundby, *The Lancet*.

NEW ADDITIONS TO REMEDIAL AGENTS.—Among some new and convenient medicaments Parke, Davis & Company announce are Mosquera's Beef Peptone, Malt Extract with Peptone and Urethral Bougies of Aristol.

Mosquera's Beef Peptone is entirely free from the bitterness of the pepsin peptones, possessing an agreeable, sweet taste.

Nutrition plays so important a part in modern therapeutics that any additions to eligible methods of nutrition are welcome. Malt extract with peptone makes an easily assimilable, highly nutritious combination of malt.

Aristol is regarded by many as quite as efficient as iodoform in its antiseptic action, and it possesses the special advantage of being entirely free from odor. The Aristol bougies should find a wide application in the antiseptic treatment of the urethra. Aristol is a substitute product of thymol obtained by mixing a solution of iodine in iodide of potassium with an alkaline thymol solution.

CHLORAL AS A COAGULANT.—Though hydrate of chloral is generally used in medicine it is not without its advantages in surgery. According to Dr. Marc Sée it possesses the property of coagulating blood and serous fluids, and may be made to replace the iodine solution generally injected into hydroceles. He himself has treated two hundred hydroceles with chloral without the occurrence of any accident. He employs for this purpose a 10 per cent. solution, an ounce of which is injected all at once, or very slowly, into the sac. Two or three days afterwards a large effusion of fluid into the tunica takes place, but is soon entirely reabsorbed. Where the hydrocele wall is much thickened injections of chloral, or, indeed, of any kind, are useless, and recourse must be had to free incision. The chloral solution above referred to may be repeatedly injected, with advantage, into the neighborhood of varicose veins, as it causes the blood gradually to coagulate, and the veins to contract. Some trials have also been made with chloral as an injection into vascular tumors, but hardly sufficient to warrant any definite report.—*Lancet*.

WORLDLY WISDOM.—Dr. White, of Enfield, N. Y., reports that there has been no death from consumption in that town for nine years, nor a single case of that disease among the 1,500 residents.

Dr. Bateson recommends a collyrium of sugar and water, for lime in the eyes.

Dr. Reynolds treated successfully a case of coal oil poisoning by giving an antimonial emetic, followed by gelsemium and bromide of potash, sweet oil and white of egg.

Dr. Worsley says that in the cholera of 1849, persons who used only cistern water escaped, while the disease raged among those who used the limestone water.

Dr. Taylor prescribes for dysentery :

R.—Plumbi acet.,
Pulv. opii,
Camphoræ.....āā gr. lx.
Ext. capsici fl.,
Creasoti.....āā gtt. x.

M.—Et in pil. lx div.

S. One, two to six times daily.

—*Med. World*.

A NEW METHOD OF DRESSING THE CHEST IN PNEUMONIA, PLEURISY, PLEURODYNIA, ETC. — If there is to be any cupping or other preliminary operation, have that attended to ; then all the ingredients

wanting are pure collodion and absorbent cotton in smooth layers, and a good, broad brush, like mucilage brushes.

Apply a very thin layer over the side affected from spinal column to sternum, and secure it with collodion smeared thoroughly over it. Then go on with thicker layers, securing them with collodion until a good padding is obtained, paying particular attention to the edges. In double cases you can act accordingly. The advantages are :

1. The one dressing, if well applied, will last throughout the case, and so,

2. The fatigue and discomfort of frequent poulticing are avoided.

3. The side, in single cases, is held as in a splint, while the free side does the breathing. A first-class non-conductor is covering the chest. I am not sure but that the contracting collodion may have some influence in controlling the blood supply.

4. There is no particular interference, in one who has a good ear, with physical examination. May be it would be a good thing if there was ; for, having once made the diagnosis, what is the use of exhausting the patient every day by trying to find out whether one-eighth of an inch, more or less, is involved ? The general symptoms will tell that.

—*Hunt, Annals of Gynec. and Pæd.*

INTRABRONCHIAL INJECTIONS IN PULMONARY PHTHISIS —Dr. Giulio Masini has made experiments (*Gazzetta degli Ospitali*), as to the possibility of injecting medicinal substances directly into the bronchi, and has satisfied himself that it can be done. He uses for the purpose the barrel of an ordinary syringe to the distal end of which is fixed a catheter, with the usual laryngeal curve, which can be pushed out or drawn in as may be required. The liquid used was a 20 per cent. solution of olive oil, filtered and sterilized, and creasote. This injected into the trachea, or into one or other bronchus by passing the catheter through the glottis from the mouth. Auscultation by an assistant, while the liquid is being injected, enables the operator to know whether the medicament is reaching its destination. The experiments were made in Professor Maragliano's clinic, at Genoa, on five men and one woman suffering from various degrees of pulmonary disease—from catarrhal bronchitis with doubtful signs of tuberculosis to the gravest form of phthisis, with infiltration of both lungs, cavities, etc. In two of the cases in which on admission there were signs of disease at the apex, with night sweats and wasting, the effect of the treatment was very remarkable. After injections of the solutions every day for a month (increasing gradually in amount from 1 to 4 cubic centimeters) the physical signs disappeared "completely" in one case, and "all but completely" in the other. Both of them gained considerably in weight. In one of the remaining cases the treatment had to be discontinued almost immediately, on account of the extreme sensibility of the larynx and the indolence of the patient. In the three others, daily injections (of 4, 5, 8, up to 10 cubic centimeters) were given during three months and a half ; in two of them a "notable result" was obtained, the expectoration ceasing almost entirely, the diseased area in the lungs becoming much smaller and the patients gaining weight and feeling better. In the fourth case the disease remained stationary, but the daily amount of expectoration diminished by 80 grammes, and there was a slight gain in weight. Dr. Masini thinks these results sufficiently encouraging to warrant further trial of the method.—*Brit. Med. J.*

FLUORESCIN.—My limited experience with fluorescein seems to warrant the following conclusions:

1. Of the two varieties, the red (fluorescein) and the yellow (fluorescein), neither is preferable, the yellow being as effective as the red.
2. The solution, grs. x, ad oz., is non-irritative, both to the normal and to the inflamed conjunctiva and cornea.
3. The solution has no effect on the normal tissues.
4. Where there is any solution of continuity of the anterior part of the cornea, there is a greenish discoloration (superficial keratitis, abrasions, ulcers).
5. The abrasion of the anterior layer of epithelium reduced by the instillation of cocaine does not show this effect.
6. In parenchymatous keratitis there is no discoloration.
7. It is useful mainly in locating foreign bodies and in cases of ulceration where there is much photophobia and the examination is difficult.
8. It has failed me several times in locating foreign bodies, so that the negative diagnosis is not established by a failure of the solution to discolor the cornea.—Smith, *Am. Jour. Ophth.*

DERMATITIS GANGRENOZA COMPLICATING VARI-CELLA.—A healthy infant of nine months was the last of a large family of children to develop the disease, and for three days exhibited the usual mild course of symptoms.

On the fourth day there appeared on the left side of the scalp several circumscribed patches of erythema, varying in size from an eighth to three-fourths of an inch in diameter, and during the following night many similar spots developed on the left side of the face, neck and trunk.

Later on, the left buttock became scarlet with a greenish-white center which increased in diameter to about an inch, when under a charcoal poultice this sloughed, leaving a deep, irregular cavity. About the same time the skin over the other erythematous patches assumed a gangrenous appearance, and rapidly sloughed, leaving at the site of each a clean-cut hole extending through the true skin. Over the left pectoral region, coalescence of numerous maculæ had taken place, forming a gangrenous surface five or six square inches in area. Death ensued before this place had sloughed. The child remained plump to the end, nursed almost ravenously, and suffered but little, dying on the sixth day.

As a symptomatic affection, gangrene of the skin sometimes occurs in the course of cerebral or spinal disorders, and also in diabetes, but I can find no record of its appearance in so mild a malady as varicella. One marked peculiarity of this case was in its being unilateral, whereas it generally appears symmetrically, especially in the idiopathic variety.

—Roberts, *Med. Progress.*

TREATMENT OF DIPHTHERIA.—In treating a case of diphtheria, it has been my custom to divide it into different stages:

1. Stage of infection.
2. Stage of invasion.
3. Stage of deposition of false membranes.
4. Stage of separation of false membranes.
5. Stage of complications, viz., albuminuria, paralysis, etc.

By carefully recognizing the different stages, the practitioner, by using appropriate remedies, will carry his patient through safely. The stage of infection is stated by Oertel as from two to five days. I have

seen it develop in twelve hours. This is the stage when prophylaxis should be thoroughly adopted. The stage of invasion, characterized by general malaise, high fever, often vomiting, and rapid respiration, and coated tongue. In this stage I administer calomel, in my experience better combined with bicarbonate of soda; from 3 to 5, or even 10 grains of calomel rubbed up with about 2 grains of soda, and administered dry on the tongue every four hours, until the characteristic effect of it is seen by green spinach stools. When this treatment is used early, the membrane will be limited, as shown by its thick and everted edges. At this time I use a spray of peroxide of hydrogen, 1 to 3 of water, and when the patch is limited to a circular area, I paint with full strength of peroxide of hydrogen, being careful not to get it on the healthy surface, as it is a decided irritant. After all of the membrane has been gotten off by the spray, the mouth is gargled with pure water, and the diseased surface painted with bichloride solution, 1 to 2,000. The painting done only by the physician three times a day, or by an intelligent member of the family. The spray of peroxide of hydrogen is used every two hours.

—Van Wyck, *Med. Record.*

FERRIC BROMIDE.—Dr. Hecquet, formerly physician to the Abbeville Hospital, very strongly recommends the perbromide of iron or ferric bromide in many affections in which it is desirable to soothe without depressing and to strengthen without exciting. Out of twenty-five cases of spermatorrhœa treated by this drug nineteen were completely cured, two only being unrelieved, and in these cases complications were present in the form of prostatic enlargement and stricture of long standing. The perbromide was frequently found useful in cases of chloro-anæmia, leucorrhœa, hysteria, amenorrhœa, hydræmia of pregnancy, chorea, epilepsy, diabetes, and tuberculosis. In conjunction with Dr. Vacossin a series of trials were made in the Abbeville Hospital on its action in cases of cardiac hypertrophy, with the result that Magendie's observations, made more than fifty years ago, were confirmed, the patients being strengthened and relieved by the calming of the palpitation and of the dyspnœa. This combination is well borne, even by irritable stomachs. It may be taken in solution, or in lozenges, the dose being from three to five grains. The action is more rapid than that of most iron compounds, as its good effects begin to manifest themselves in cases of chlorosis during the first week of administration, a complete cure being generally obtained in a month. Dr. Hecquet has found by experience that the ferric salt Fe_2Br_6 acts both more rapidly and gives more permanent results than the ferrous salt FeBr_2 , and hence he has latterly confined himself to prescribing the former, which he does not hesitate to say is endowed with exceptionally valuable properties, and deserves to be far better known and more employed than it has hitherto been. There is a preparation of the ferrous salt in the Pharmacopœia of the British Pharmaceutical Conference, which, however, is not very largely prescribed. No preparation of the ferric salt seems to be known in this country.—*Lancet.*

SPECIFIC MEDICATION.—Aconite exerts a specific influence upon the heat producing function of the body, and if given in fevers, assists in reducing the temperature. The specific symptom which indicates that aconite should be prescribed is a chilly sensation, cold chills running over the body, yet the clinical

thermometer will show a rise of temperature above normal. The remedy should be given in small doses, oft repeated.

Belladonna has a specific effect upon the capillary circulation of the blood, especially through the meninges of the brain and spinal cord. Congestion, or more properly speaking, hemostasis of these tissues will be promptly remedied by the administration of small doses of belladonna repeated at intervals of an hour. A dull headache across the forehead will be dispelled in a short time by small doses of this remedy. Macrotys has a special affinity for the muscular tissues of the body, and if properly administered will remove soreness of the muscles without fail. Many women suffer from soreness of the muscular tissue of the uterus, and are often treated for "bilious colic" with but little relief, when if macrotys be prescribed in proper doses and repeated at frequent intervals, the suffering will be speedily arrested. Often in fevers the muscles of the entire body will be in that condition described as "soreness," which will be one factor of the disease, and will be removed at once by macrotys.

Phytolacca has a specific influence upon the lymphatic glandular system, stimulating that entire system to functional activity, relieving engorgement of the lymphatic glands, as is manifested in so-called scrofula, syphilis and other diseases which involve these glands. A normal functional activity of the lymphatic glands insures a plastic condition of the blood from which pus will not form, and all wounds of the body will heal by first intention. Phytolacca will secure this. This knowledge of the action of remedies is specific medication.

—*Journal of Eclectic Med.*

DRUG TREATMENT OF CHOREA.—The drug in contradistinction to the moral and dietary treatment of chorea has up to the present given rise to a vast amount of discussion. It still rests on very debatable ground, some extolling one drug, some another, a clear proof that no one drug is ever found to be universally efficient. Others, again, maintain that drugging in this affection is quite as, if not worse than, useless. The writer recollects being once up for an examination in medicine in which the learned examiner, with decided views, scouted drugging in chorea, and informed his uncomfortable candidate, in the dogmatic tone peculiar to not a few examiners, that when next questioned as to the best treatment of chorea to reply: "Six to eight weeks, combined with peppermint-water thrice daily." Judging, however, by the recorded results obtained in recent years by competent observers in this country and elsewhere in the treatment of chorea by antipyrin and its allies, there would appear to be a consensus of opinion that in the therapeutics of chorea a step has been made in advance. Amongst the observers who have exhibited this drug with success is Dr. Moncorvo. He found, however, that large doses were necessary before any decided effect was produced even in the case of children, and that although when polyuria and nocturnal incontinence existed these were appreciably diminished, they were not entirely suppressed; these and other considerations led him to try exalgine, and from the very first he records that the benefit which attended its administration was decidedly encouraging. The polyuria and nocturnal incontinence, which the antipyrin had only served to check, were completely arrested by exalgine. Again, while the effective dose of antipyrin was found to be three grammes a day that of exalgine only amounted to thirty centigrammes. Moreover, Dr. Moncorvo says that when

treated by antipyrin the average duration of the disease is one month, while in those cases in which he has tried exalgine a cure has been effected under three weeks. He finds that the drug is well borne by children, and has never observed any unpleasant effect follow its use. Seeing how common and distressing an affection chorea is, and the uncertainty, if not impotence, of therapeutic efforts hitherto, the observations of Dr. Moncorvo are worthy of note, and his practice of more extended trial.—*Lancet*.

AMERICAN SCIENTISTS.—Koch's great name carried his results to every part of the world, and they were received with confidence, because it came from Koch; it would have been different had it been from a more humble origin. Still, with all his reputation, Koch's achievements should not so overshadow every other man's work as to relegate them to the rear. It is particularly humiliating, and positively painful, that deserving American scientists who, themselves, are quoted abroad as authorities, barely receive recognition from the American press in general.

Dr. Samuel G. Dixon modestly announced, in 1889, that he had succeeded, by a scientific process, in producing immunity in small animals against tuberculosis, by the inoculation of a solution of certain principles extracted from the bacilli of tuberculosis in a given morphological condition. The immediate effects of this inoculation were very similar to those produced by Koch's lymph.

Dr. Kraft, of Cleveland, Ohio, is quoted as having produced practically the same thing with a substance that he terms lymph.

Dr. Salmon and his colleague, Dr. Smith, announced, in 1887, their experiments in producing immunity against a bacterial disease, hog-cholera, by the inoculation of sterilized cultures; and, in 1889, Dr. Schweinitz reported the production of immunity with chemical substances formed during the growth of bacillus of hog-cholera.

Dr. Frank S. Billings has applied for two years a process of inoculation to prevent swine-plague, which he claims is also a chemical substance, though, unfortunately, no literature has ever been published by the doctor verifying this point for the benefit of science.

Lastly, Drs. Shurley and Gibbes, of Detroit and Ann Arbor, Michigan, have formulated prescriptions of a purely chemical nature, which have had, it seems, success even more remarkable than the Koch remedy.

—*Bacteriological World*.

THE SULPHO-CARBOLATES IN INCIPIENT TYPHOID FEVER.—The value of the sulpho-carbolates in incipient typhoid fever, may be illustrated by the following case; one selected out of many: A young girl had typhoid some months ago—a typical case, severe, from which she recovered. Some time thereafter her mother, who had nursed her through her fever, was seized with the following symptoms: Headache, aching of the bones, insomnia, broken and disjointed dreams, slight cough, bowels irritable, tympanites, borborygmi, colicky pains, gurgling and tenderness in the right iliac fossa, tongue showing a tendency to dryness in the center, and slight epistaxis.

Now, was not this sufficient to justify a diagnosis of incipient typhoid fever, occurring in a house where this disease had prevailed a short time previously? I certainly thought so; and felt myself fully justified in putting the patient upon the use of the sulpho-carbolate of zinc.

Dr. Upjohn had just sent me several thousand pills of this salt, containing $2\frac{1}{2}$ and 5 grains each. I gave the patient one of the latter every two hours until the stools were disinfected; then substituted the smaller pills, given at the same interval. The symptoms were relieved almost from the first dose; and in just three days the patient was discharged from treatment, all typhoid symptoms having disappeared.

This case is described because the probability of its being typhoid was almost a certainty. But many other cases have occurred in my practice in which the diagnosis of incipient typhoid was the only one that could be made; and yet the symptoms soon passed off under the use of the sulpho-carbolates. This good result occurs so constantly that I no longer expect failure to abort an incipient typhoid, when the sulpho-carbolate of zinc is given promptly, before the typhoid bacilli have penetrated beyond the intestinal canal. I may add that the five-grain pills did not produce any gastric irritation whatever, either in this case or in any one of a number of others of incipient and confirmed typhoid fever.—Waugh.

SCARLATINAL DIPHThERIA. —I desire to place upon record a case that is unique in my own experience; though my readers may, perhaps, have had better results. The case was that of a child under four years of age. He had been attended by a dispensary physician during the first part of the illness; and this gentleman, when he gave up the case, had given a gloomy prognosis, with which I heartily coincided. On my first visit I found the child's throat covered with blackish sloughs, the lips and tongue covered with fissures and ulcers, the nose discharging freely the irritating and offensive secretion of nasal diphtheria, the eyes showing spots of pus at the inner canthus. The child complained of earache and of pain in the forehead, so that the disease had passed up the Eustachian tubes and into the frontal sinuses. Reddish spots and blotches appeared on the face and body. The stench was dreadful, the urine almost totally suppressed, but the few drops that were passed could not be saved for examination. The child had been delirious for some time: not being able to recognize his parents. The one good point was that his stomach retained milk fairly well.

It has not been my good fortune to witness the recovery of many such cases. In fact, the more extended is my experience with diphtheria, the more I dread it; especially when it has become firmly established in the Schneiderian mucous membrane, and in the passages leading from the naso-pharynx.

I felt it my duty to inform the parents that death was the only result to be expected; and that they could be very thankful if their other children, six in number, should escape.

However, I gave them a bottle of Marchand's peroxide of hydrogen, and directed them to syringe the nostrils and wash the mouth out with the solution diluted to one-fourth its strength. *This was repeated every hour, day and night.* No other treatment was employed, and whiskey was given with the milk, as the only food. The child began at once to improve; the right tympanic membrane gave way, and then the solution was thrown into the ear, and bubbled out at the nose. The urine began to be secreted more freely; and the child was pronounced out of danger in one week from my first visit.

One of the other children was seized with sore throat, enlarged tonsils and torticollis; another had a mild attack of scarlatina, but the others escaped

without contracting the disease. This in itself is notable, as the children were all kept at home, in a crowded little house, with miserable sanitation.

—Waugh.

ANTAGONISTIC ACTION OF COCAINE AND CHLORAL.

—Some years ago, when suffering frequently from attacks of acute coryza, which, while they lasted, rendered me almost unable to write, from the incessant sneezing and running from the nose, I found the greatest relief from nasal injections of a 2 per cent. solution of cocaine, from five to ten drops to each nostril at intervals of twenty minutes or half an hour. I could thus cut short an impending attack, or, by using them even more frequently, arrest—in fact, cure—one that had set in for some hours with the utmost intensity. But on several of these occasions I noticed that the use of the cocaine during the evening was followed by absolute sleeplessness, four consecutive doses of 10 grains each of chloral inducing not more than two or three hours' light sleep, though ordinarily, when wakeful from mental overwork, 5 grains would have given a natural, and 10 a sound and long night's sleep. Indeed, I believe that I have, after the free use of cocaine, taken even more than the 40 grains of chloral with but very moderate effects. Under these circumstances no sense of fatigue followed the sleeplessness, and no headache or drowsiness the sleep when obtained by these excessive doses of chloral. A lady for whom I prescribed cocaine pastilles for a painful neurotic condition of the glottis having sucked several in the course of the evening, and gone to bed with two more in her mouth (each $\frac{1}{12}$ grain), told me that she had been "wide awake" all night, without feeling tired next day; and in other cases I have observed the like wakefulness after the use of cocaine. But the evident antagonism in my own case between cocaine and chloral suggested to me the probability of its being found useful as an antidote in chloral poisoning. I applied for, and obtained, a license for undertaking a course of experiments on the subject; but finding that I could not be absent from home for so many hours as the performance of these would require, I allowed the license to lapse. The treatment of chloral poisoning hitherto has been eminently unsatisfactory. Chloral is a direct antidote to strychnine, antagonizing the excessive muscular irritation of the latter; but the converse does not hold good, since the action of chloral on the sensorium or the mental functions has not its physiological counterpart in that of strychnine; strychnine, in fact, antagonizes only the lesser half of the effects of chloral. I know that some extreme cases have been successfully treated by strychnine, galvanism, and artificial respiration, but the profound sleep has had to work itself off. Cocaine, which, if it were found expedient, in very severe cases might be supplemented by strychnine, would appear to me to be the antidote required, and, should an opportunity present itself, I shall not hesitate to try it subcutaneously, at least in the first doses.

I would invite any one who may meet a case of chloral poisoning to do the same, and I shall feel greatly obliged if any one having leisure would take up my license and institute a course of experiments *in corpore vili* on the lethal doses of chloral and the efficacy of cocaine at various stages of the poisoning by chloral from the earliest to imminent death, with the single condition that he communicate with me, and give me the credit of priority of suggestion by associating my name with his.—Willoughby, *Lancet*.

POINTS IN THE USE OF COCAINE.—The following points should be borne in mind when cocaine is used within the nose :

1. Local anesthesia is best and most safely secured, not by spraying the entire Schneiderian mucous membrane with a solution of cocaine, but by applying the solution on absorbent cotton simply to the field of operation.

2. Within certain limits, weak solutions produce deeper and more profound anesthesia than the stronger, but require a somewhat longer time to manifest their full effects; a 4 per cent. solution being probably the most satisfactory strength for obtaining local anesthesia within the nose.

3. Solutions of cocaine, when applied to inflamed mucous membrane, do not manifest their effects as quickly and completely as when no inflammation is present.

4. Unless the effects of cocaine are maintained for a considerable time by repeated applications of the drug, its use locally is followed by increased congestion and inflammation, when inflammation is already present.

5. When cocaine is used to produce a sedative effect, and diminish discharge in acute rhinitis, but more especially in nasal pyorrhœa and hay fever, it should be employed as a solution rather than as a "snuff" made by powdering cocaine crystals with other substances, because the mechanical irritation of a powder tends to increase the existing inflammation and discharge, and counteract to that extent the effects of the cocaine.

6. When a solution of cocaine is used within the nasal chambers, care should be exercised to prevent its reaching the pharynx, where it quickly suppresses the discharges, and produces a most annoying sensation of dryness, which the patient vainly tries to relieve by frequently swallowing saliva. Except as an application to the tonsils, cocaine is not well adapted for use as a therapeutic agent to be applied within the pharynx.

7. When it is necessary to prescribe a solution of cocaine for a patient to use himself within the nose, some precautions should be adopted to prevent his forming the cocaine habit. It is well not to inform him of the name and nature of the drug that has been prescribed. The morphine habit has been established by frequently sniffing a solution of morphine into the nose for the relief of pain, "catarrh," etc.; and in such cases a solution of cocaine gives so much greater relief from the local symptoms, and so great a feeling of buoyancy, not only by means of the constitutional effects of the drug, but also by the open nostrils supplying an increased supply of oxygen, that the habit of applying cocaine solutions inside the nose is soon established, and is only with great difficulty abandoned.—Gleason, *Med. World*.

CURE OF CHYLURIA BY THYMOL.—In an article on Chyluria by the late Surgeon-Major T. Lewis in "Quain's Dictionary of Medicine," this passage occurs: "It cannot be distinctly stated that the course of the disease has been materially modified, much less cured, by any known remedy." It is, therefore, gratifying to be able to bring to the notice of the profession the following cases of chyluria which have been completely cured by the internal administration of thymol.

CASE I.—Nazim Mahomed Beg, aged twenty, was admitted into the Residency Dispensary on September 11, 1889, on account of retention of urine. A catheter was passed and a small quantity of chylous

urine withdrawn. The distension of the bladder was not relieved, and on September 12 it was necessary to perform perineal section. A large quantity of white clot was removed, and a lithotomy tube was tied into the bladder, which was washed out with a solution of bichloride of mercury. At first quinine and various other remedies were employed without any effect; the urine continued chylous, the patient was never free from fever, and filariæ were always found in the blood at night. On September 27 the administration of thymol in one-grain doses every four hours was commenced. On October 12 the dose was increased to two grains. On the 18th the symptoms began to improve, and by December 14, 1889, he was quite well, and there was no trace of filariæ in the blood. When the patient was admitted into the hospital, he was emaciated and almost in a dying state. He is now (December 11, 1890) quite well, and is fat and strong. The improvement in his condition might be thought to be due to the spontaneous cessation of the disease, but no treatment did the patient any good whatever until the administration of thymol was commenced, and then the improvement was steady and gradual, and may fairly be attributed to the action of the drug.

CASE II.—Mahboob Khan, sepoy, aged twenty. Admitted into the Afzul Gunj Hospital on October 1, 1890, on account of stone in the bladder. The patient stated that he had suffered from symptoms of stone for ten years. On admission he was emaciated, his temperature was 102°, and there was a large stone in the bladder. The stone was removed by lateral lithotomy at 1 P.M. on day of admission, and weighed five ounces and nineteen grains. The temperature remained high after the operation, particularly at night, and on October 6 the urine was discovered to be chylous. Filariæ were found in the blood, and also in the urine. The administration of thymol was commenced in two-grain doses on October 6, and increased to three-grain doses on the 11th. On the 14th the patient was attacked with dysentery, and the thymol was replaced by scruple doses of ipecacuanha. On the 20th he had recovered from the dysentery, and thymol was recommenced. The dose was gradually increased to five grains three times a day, and the patient left the hospital cured on November 23. He is now (December 15, 1890) quite well, and is fat and strong like the first patient. His urine is normal, and there are no filariæ in the blood.

The important practical point in the above cases is the fact they establish that thymol has the power of destroying organisms in the blood and tissues, which are actually the cause of a well-known disease. The destruction of the organisms cures the disease. On the other hand, I have tried it extensively in many diseases which are supposed to be due to organisms, such as leprosy, phthisis, and gonorrhœa, but without benefit. Either, then, thymol, which is such a deadly poison to the filaria, is not a poison to the bacillus, which is extremely unlikely, or bacilli are not the cause of the diseases I have mentioned.

It appears probable that thymol may prove useful in the elucidation of some of the intricate questions involved in the relations of micro-organisms to disease, and it is on this account to be commended to the consideration of bacteriologists.

—Lawrie, *The Lancet*.

ANGINA PECTORIS.—At the Medical Society of London, Dr. Douglas Powell opened a discussion on the subject of angina pectoris, and urged that the subject should be considered on a broader basis. He

said it was not such a simple malady as was supposed. The characteristic symptoms ranged between the wide limits of remediable functional disorder on the one hand, and fatal organic lesion of the cardiovascular system on the other. He mentioned a case of a lady, aged forty-five, of neurotic temperament, who had complained of too forcible cardiac action for some years previously. There was a history of rheumatic fever fifteen years before, and five years ago, when riding hard across country, she was seized with severe cardiac pain and distress, and marked interference with respiration. These symptoms recurred on subsequent occasions. The pulse was small and cord-like, and of high tension. On using hard pressure with one finger the pulse was felt almost, if not quite as well, by a second finger placed further along the vessel, this phenomenon being evidently due to a back wave from the periphery. The heart's action was somewhat labored, intermitting twice in the minute; the first sound was muffled, but there was no distinct murmur. He regarded this as a case of angina of the first degree, or one of vasomotor angina. He observed that one noticeable feature in this variety of the disease was the extreme restlessness of the patient, who often felt chilly and in need of exercise. In regard to this vasomotor form of angina, he remarked that it was of comparatively recent discovery, and the prognosis in such cases must necessarily depend largely upon the actual condition of the heart. He regarded the vasomotor disturbance as an essential factor in the majority of cases of angina pectoris, just as bronchial hyperesthesia was in case of asthma. He believed it to be possible for the heart to succumb to these attacks without itself being affected with any obvious lesion. He referred to the case of a medical man, aged thirty, who consulted him on account of paroxysms of præcordial pain. On examination, there was no evidence of enlargement or disease of the heart, and he regarded it as an example of pure vasomotor angina. A six months' rest from work left him apparently sound in all respects. He referred to another case in a gentleman, aged sixty-eight, in whom a marked improvement in the general condition occurred after an attack of gouty eczema. He remarked on the rarity of a fatal issue in these cases, the attacks if unrelieved by art usually coming to a natural end, probably through the action of the depressor nerve of the heart, and possibly some analogous mechanism of the small vessels under the stimulus of pressure inhibiting and controlling cardiac and vasomotor spasm. He agreed with Dr. Broadbent's suggestion that some cases of fatal cramp whilst bathing were probably due to sudden oppression of heart from contraction of systemic arterioles—in fact, to vasomotor angina of an intense kind associated, perhaps, with a fatigued heart. Though physiologists maintained that when systemic arterioles were contracted by cold the visceral were dilated and *vice versa*, yet it was highly probable that under certain conditions of chill and emotion the whole arterial system might undergo contraction. He quoted cases which seemed to show that the right side of the heart had borne the brunt of the anginal attack. The cardiac distress and rigid arteries of uræmia might, he said, almost be described as chronic persistent angina, though it was with the so-called cases of cardiac asthma in uræmia that the analogy with vasomotor angina was most obvious. He then passed on to discuss angina pectoris gravior, in which the vasomotor disturbance is associated with degenerative cardiac disease. He criticised the view that the disease was necessarily caused by or associated with

disease of the coronary arteries. The prognosis in the first group was comparatively favorable, the probability being that death would ensue from some other cause, such as cerebral hemorrhage, while in the last group an almost certainly fatal result might be anticipated within a short period. Both for prognosis and treatment it was important to make out the precise condition of the heart in respect of size, position, and power. For the treatment of these two varieties, nitrite of amyl and nitroglycerine were of great value, but far more so in the graver cardiac cases. In the first group they required to be associated with nervine tonics and sedatives, while in the second group carminatives and stimulants were of special value. He compared the pain in cases of sudden death of angina to that associated with embolic gangrene in the limbs. In conclusion he described a syncopal variety of angina rarely met with except in persons over sixty five, and then usually associated with gout. He suggested that undue acidity of the blood might be concerned in its causation. The attacks were often associated with dyspepsia, and the treatment indicated was careful feeding and gentle exercise. In conclusion he said he regarded angina as a disturbed innervation of the heart and vessels associated with more or less intense cardiac distress and pain, and a general prostration of the forces, always producing anxiety, and often amounting to a sense of impending death. He grouped the varieties as angina pectoris vasomotoria, angina pectoris gravior, primary cardiac angina, and syncopal angina; the first two forms bearing a remarkable resemblance to the respiratory analogue asthma.

Dr. W. M. Ord insisted on the remarkable parallel between the symptoms of asthma and angina pectoris. He pointed out that the term asthma formerly comprehended a great many varieties of difficulty of breathing, and statisticians had shown that in times past asthma was a very fatal disease, according to the returns, any reduction in this respect being probably due to better diagnosis. With regard, however, to angina, the condition was rather different; at present people would have a larger range for angina than formerly, especially if they adopted Dr. Powell's conclusions. The old limited definition to which he alluded would certainly have to be extended to a large number of cases in which one or two only of the constituent typical symptoms of the disease, as first described, would be present. Such cases might, perhaps, be termed anginous, if not anginal. He pointed out that these anginous attacks usually came on in the daytime, and the prognosis was notably aggravated when they supervened at night. He compared the two classes of cases, one in which the patient had angina on exertion as the consequence of sudden arterial tension caused thereby, and the other in which the attack occurred independently of muscular exertion, and in these he thought the mechanism was probably nervous, either emotionally or by reflex. He had seen illustrations of both classes. He insisted on the importance of dyspepsia as a factor in bringing about the attacks, and observed that if he were restricted to one remedy in the treatment of angina he would prefer sulphate of magnesia to nitroglycerine, in order to secure a regular action of the bowels. He mentioned the frequent coincidence of glycosuria with angina, which he thought authorized the inference that the visceral blood vessels were dilated, and not contracted, as the author seemed to suppose, along with the superficial vessels. He said that the connection of gout with angina ought not to be forgotten, it being a neurosis, and involving, as it did, changes in the

chemical constitution of the tissues. Treatment directed to the gout often relieved the angina. He insisted upon the fact that no sensations of an anginous type were to be treated lightly, and the patient or his friends ought always to be warned of the danger.

Dr. W. H. Broadbent said he had been unable to make up his mind as to the condition of the heart during the paroxysms. Sometimes the pulse was irregular and small, sometimes there was high arterial tension, at other times not; while occasionally the pulse was practically unaffected throughout an attack even of great violence. The central fact, after all, in attacks of angina was that the heart was over-wrought, either by peripheral resistance or on account of intrinsic failure. That fact fitted in very well with the author's classification. It was especially in those cases due to weakness of the heart that the great danger lay. He pointed out that vasomotor resistance alone would not be sufficient to determine an attack. The proportion of cases of high arterial tension without angina pectoris was very much greater than the proportion of fatal cases of angina in which there was no disease of the coronary arteries. He presumed that disease of the coronary arteries acted by causing degeneration of the cardiac muscular fibres. In bed and during sleep there was the upward pressure of the abdominal viscera and the curious running down of the cardiac powers to account for the supervention of the attacks. He pointed out that muscular exercise lowered very rapidly the resistance of the peripheral circulation. The effects of exercise were exerted principally on the right side of the heart. With reference to the neurotic theory, he pointed out that the vast majority of anginal cases occurred in the non-neurotic sex, it being extremely rare in women. They ought, therefore, to beware of attaching too much importance to an unexplained neurosis. The occurrence of angina in gouty people he ascribed to its association with high arterial tension. He had also noted the existence of a myocarditis in patients suffering from glycosuria, associated with high arterial tension, and this was usually followed by marked anginal paroxysms. He remarked on the fact that angina was seldom or never associated with mitral lesions, and anginal symptoms usually subsided on the supervention of a mitral lesion in a person subject to anginal attacks. His own experience seemed to show that the gravest cases of angina were those in which the least explanation could be found to account for the symptoms.—*Brit. Med. Jour.*

FRENCH NOTES.

A. E. ROUSSEL, M.D.

ON THE ANTISUDORIFIC EFFECTS OF CAMPHORIC ACID AND TELLURATE OF SODA. (Dr. Combemale.)—The author arrives at the following conclusions:

A. 1. Camphoric acid has a certain action on the nocturnal sweats of phthisis; it very often checks them, frequently diminishes them, and is rarely exhibited without result.

2. These antisudorific effects are produced by doses of thirty grains a day, or better, at each dose.

3. No disagreeable or untoward result accompanies the use of camphoric acid.

4. Camphoric acid acts all the more surely in tuberculous subjects when the pulmonary lesions are the least purulent.

B. 5. Tellurate of soda possesses very strong properties against the nocturnal sweats of phthisis.

6. In doses of one grain *pro die*, tellurate of soda will produce to a certainty its antisudorific effects;

with one-half or three-quarters grains the result is less sure and less marked.

7. Tellurate of soda will, sometimes, impart a garlic-like odor to the breath; its repeated ingestion will produce some secondary troubles.

8. The results are equally good in all stages of pulmonary tuberculosis; but the doses given should be in direct relation to the intensity of the pulmonary lesions.

C. 9. Tellurate of soda was until now the best of medicaments to oppose to the profuse sweats of the phthisical.

10. Camphoric acid, although less trustworthy than tellurate of soda, should also be preferred to all the other known antisudorific agents.

D. 11. Tellurate of soda as well as camphoric acid is not limited in its action to the sweats of phthisis. Numerous pathological sweats (rheumatism, typhoid fever, syphilitic pulmonary cavities, dyspepsia) are influenced by these two agents.

12. The action of these two antisudorific medicaments approaches an antiseptic action, we mean, destruction to the soluble microbic products.

—*Bulletin de Thérapeutique.*

TREATMENT OF CONTUSION OF THE LUNG. (Dr. Picqué.)—If the contusion is slight, we keep the patient in bed in absolute repose; we apply *loco dolenti* wet cups, as well as subcutaneous injections of morphine, and we immobilize the thorax by means of a bandage. In severe cases to combat immediate accidents, such as collapse and hemorrhage, we use frictions and hot applications; we provoke energetic, revulsive action by means of sinapisms, dry cups; we administer subcutaneous injections of ether. Internally, ice, perchloride of iron, in doses of ten to twenty drops in sweetened water. Subcutaneous injections of ergotine of Bonjean, or ergotinine of Tanret. Immobility and absolute silence, the patient is placed in bed, the thorax slightly elevated. If the contusion of the lung is complicated by emphysema, hemothorax, pleurisy, or by pneumonia, we have recourse to the treatment of each of these complications.

THE PRESENCE OF A POTATO IN THE RECTUM. (Dr. Stocquart.)—A workman had introduced a potato in the anus to facilitate intestinal evacuation. The potato introduced into the rectum after three days of constipation became swollen by absorption of intestinal fluids. The only result was to produce a marked feeling of discomfort in the lower part of the abdomen, but the desired effect was not obtained. All efforts made by the patient to remove the foreign body were useless, as the object was round and could not be grasped. A certain quantity of liquid faecal matter was passed. Dr. Stocquart, on his arrival, found the hypogastric region tympanitic and painful. Involuntary but futile action, of defecation, accompanied by vomiting, were present.

An examination could not be made with the ordinary anal speculum, but Cusco's speculum showed the potato rounded like a ball. It was extracted in pieces after having been perforated by means of a bistoury with a long handle. —*Revue de Thérapeutique.*

LOCAL EPILEPSY.—M. Féré mentions that it has already been pointed out that epileptic paroxysms are sometimes provoked by the exercise of certain special muscular groups. In one case we had to deal with an engraver, where the attacks were brought on by his work; in another, reported by M. Féré, the attacks were provoked by the movements of mastication. M. Féré has recently observed in a patient

the production of an attack, limited to the hand and forearm, following the prolonged movements necessitated by writing. This attack resembled closely one of writer's cramp. But it was not produced each time that the patient wrote. After some time this localized attack was replaced by a severe paroxysm of classical epilepsy. Treated with the bromides, the patient had no further attack.

—*La Médecine Moderne.*

ABORTIVE TREATMENT OF HERPES (Prof. Leloir):

R.—Alcohol at 90°..... 2 ounces.
Resorcine..... ½ drachm.

Or:

R.—Alcohol at 90°..... 2 ounces.
Menthol..... ¼ drachm.

If the pain is very severe we use the following:

R.—Alcohol at 90°..... 2 ounces.
Hydrochlorate of cocaine..... 15 grains.
Extract of cannabis indica..... 150 "
Essence of mint..... 2½ drachms.

To be applied locally.

—*La Tribune Médicale.*

DEATH FOLLOWING VACCINATION.—M. Gaucher reports a case of a young infant who, nine days after vaccination, was covered with a very extended eruption, presenting the aspect of that of vaccine; the temperature rose to 40.5°; respiration became embarrassed, and the child died the fourteenth day after the vaccination. At the autopsy there was found lesions of infectious disease of the liver, of the spleen and of the kidneys, with very intense congestion of both lungs.

—*La France Médicale.*

SOME SYMPTOMS OF TABES DORSALIS.—Marina has analyzed the symptoms in forty cases of tabes, paying particular attention to the auricular, laryngeal, and pharyngeal symptoms.

In seventeen cases the hearing was normal; in twenty-nine cases there was lesion of the internal ear; in four, lesion of the middle ear. In no case was there noted Meniere's disease. In eight cases out of eleven there existed hyper-excitability of the auditory nerves to electricity. These troubles may be observed at all stages of tabes.

The sensibility of the pharynx was diminished in fourteen cases; that of the larynx in nine. In ten cases there was paresis of the adductors of the vocal cords, and complete immobility in four cases. Ataxia of the tongue was noticed nine times.

Of a total of ninety-two ataxics observed, the frequency of the ocular troubles is as follows:

Argyle-Robertson pupils.....	45 times.
Immobile pupils.....	41 "
Unequal pupils.....	24 "
Myosis.....	39 "
Mydriasis.....	6 "
Ptoxis.....	6 "
Motor paralysis.....	12 "
Optic atrophy.....	9 "

Fifty-five of the ninety-two cases had had syphilis.

—*La Médecine Moderne.*

ERGOTINE IN GONORRHOEA.—Dr. Roicki speaks of ergotine as an excellent means of rapidly curing chronic gonorrhœa. He administers it simultaneously internally in pills and by urethral injections as follows:

R.—Ergotine..... 5 grains.
Distilled water..... 9 ounces.

These injections are very well supported. The same treatment is applicable in hemorrhage from the urethra.

—*La Médecine Moderne.*

Medical News and Miscellany.

The Bacteriological World presents its readers with a portrait of Dr. G. M. Sternberg in the February number.

NOTE.—Our files of January 24, 1891 are exhausted, and we will be obliged to any subscriber who will send us a copy of that date.

DURING January the deaths in St. Louis numbered 725; giving an annual mortality of 18.91 on an estimated population of 460,357.

DR. H. A. JOHNSON, Emeritus Professor of Practice, and President of the Board of Trustees of the Chicago Medical College, died February 26, aged sixty-nine years.

WOMAN'S Medical College of Pennsylvania, Philadelphia, Pa., Dean's Office, February, 21 1891:

"Resolved: That the Faculty of the Woman's Medical College of Pennsylvania approves of the present bill of Hon. Frank M. Riter to establish a State Board of Medical Examiners and Licensers."

CLARA MARSHALL, Dean.

Medical Progress appears in February with Robert C. Kenner as editor. While we wish Dr. Kenner all manner of prosperity, we sincerely trust that the editorial ranks are not to be depleted by the loss of Drs. Reynolds, McMurtry, Barbour, and Dixon. There has always been something very attractive to us about the pages of *Progress*, and we believe that many others share our liking for it and the big-brained, big-hearted men who have edited it.

THE Illinois State Board of Health has decided that hereafter it will recognize no foreign diploma that does not confer the right to practice medicine in the country in which it was granted. The holder of an Austrian, a German, Russian, or Swiss diploma, wishing to practice in Illinois, must hereafter pass an examination before the State Board, unless he has passed the State-Examination of the country from which he comes. The holder of a Canadian diploma, unless a licentiate of the Colleges of Physicians and Surgeons of Ontario or Quebec, must pass an examination before the Illinois Board in order to practise in Illinois.

CHICAGO POLICLINIC.—The Third Semi-Annual Special Course for Practitioners will begin March 30, 1891, and continue two weeks. This course will include:

1. Surgery of the Brain and Spine, Prof. C. Fenger; Surgery of the Thorax and Stomach, Prof. N. Senn; Surgery of the Abdomen, including Abdominal Tumors, Prof. Chas. T. Parkes; Surgery of the Genito-Urinary Organs, Prof. W. T. Belfield; Surgery of the Female Pelvic Organs, Profs. F. Henrotin and J. H. Etheridge. All operations demonstrated on dogs and cadavers.

2. General Clinics in all the Departments of Medicine and Surgery by Members of the Faculty.

3. Operative Surgery on the Cadaver.

Fees.—Matriculation, \$5.00; Course No. 1, \$20.00; Course No. 2, \$25.00; Course No. 3, \$15.00. General ticket for the three courses, \$50.00.

The use of Koch's lymph in medical and surgical cases will be demonstrated.

For further information address the corresponding secretary,

M. R. BROWN, M.D., 174 and 176 Chicago avenue.

WEEKLY Report of Interments in Philadelphia, from February 21 to February 28, 1891 :

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Abscess.....	3	2		Hernia		2	
Alcoholism.....	3			Homicide		1	
Aneurism of the Aorta.....	2			Inflammation brain.....		3	13
Asthma.....	1			" bronchi.....		1	6
Apoplexy.....	13			" kidneys.....		5	
Bright's disease.....	16	1		" larynx.....		2	2
Burns and scalds.....	1	1		" liver.....		1	
Cancer.....	7			" lungs.....		24	30
Casualties.....	4			" pericardium.....		1	
Cerebro-spinal meningitis.....	1			" peritoneum.....		6	3
Congestion of the brain.....	5			" knee joint.....		1	
" lungs.....	2	2		" s. & bowels.....		6	8
Child birth.....	1			" pancreas.....		1	
Cholera infantum.....	3			" tonsils.....		3	
Cholera morbus.....	1			Inanition.....		9	
Cirrhosis of the liver.....	2			Marasmus.....		11	
Consumption of the lungs.....	43	9		Old age.....		13	
" bowels.....		1		Obstruction of the bowels.....		2	
Convulsions.....	13			Paralysis.....		8	
Croup.....	7			Poisoning.....		1	
Cyanosis.....	6			Pyemia.....		2	
Debility.....	2	3		Rheumatism.....		1	
Diabetes.....	2			Sclerosis of spinal cord.....		1	
Diarrhoea.....	1			Septicæmia.....		4	
Diphtheria.....	16			Softening of the brain.....		1	
Disease of the heart.....	17	1		Shock, surgical.....		2	
Drowned.....	1			Suffocation.....		1	
Dropsy.....	3			Suicide.....		1	
Effusion of brain.....	1			Syphilis.....		2	
Erysipelas.....	4			Tabes mesenterica.....		2	
Enlargement of the heart.....	1			Teething.....		2	
Fever, puerperal.....	2			Tetanus.....		1	
" remittent.....	1			Tumor.....		2	
" scarlet.....	4			Uremia.....		2	
" typhoid.....	3	6		Whooping cough.....		4	
Gangrene.....	2						
Hemorrhage.....	1	1		Total.....		223	178

INVALID (chronic): "Tell me, doctor, what feature of my complaint do you find it hardest to overcome!"
Doctor: "That tired feeling."
—New York Herald.

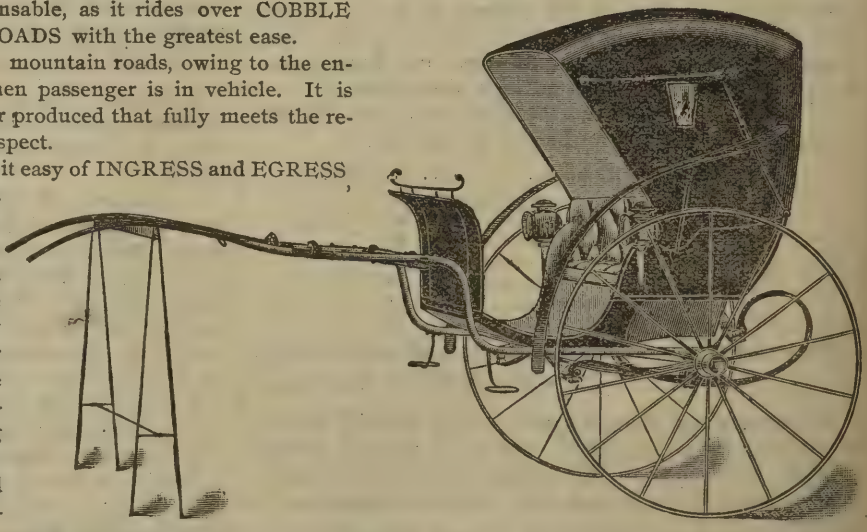
TO CONTRIBUTORS AND CORRESPONDENTS.
ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.
Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.
The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.
Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.
Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from February 8, to March 2, 1891.

By direction of the Secretary of War, Lieutenant-Colonel Charles C. Byrne, Surgeon, is relieved from duty at Fort Sam Houston, Texas, and will report in person to the commanding general, Department of the Columbia, for duty as Medical Director of that Department, relieving Colonel Bernard J. D. Irwin, Surgeon. Colonel Irwin, on being relieved by Lieutenant-Colonel Byrne, will proceed, via San Francisco, Cal., to St. Louis, Missouri, and report in person to the commanding general, Department of the Missouri, for duty as Medical Director of that Department, relieving Colonel Charles Page, Assistant-Surgeon-General. Colonel Page, on being relieved by Colonel Irwin, will report in person to the commanding general, Division of the Atlantic, for duty as Medical Director of that Division. Par. 6, S. O. 36, A. G. O., Washington, D.C., February 13, 1891.
By direction of the Secretary of War, Captain James C. Merrill, Assistant-Surgeon, is relieved from duty at Fort Reno, Oklahoma Territory, and will report in person at the earliest practicable date, to the Surgeon-General, U. S. Army, in this city, for duty in his office. Par. 5, S. O. 29, A. G. O., Washington, D.C., February 5, 1891.

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The Times and Register.

Vol. XXII, No. 11. NEW YORK AND PHILADELPHIA, MARCH 14, 1891. Whole No. 653.

ORIGINAL ARTICLES.		PAGE
ABNORMAL REACTIONS AND ANOMALIES IN THE USE OF PROF. KOCH'S METHOD FOR TUBERCULOSIS. By Karl Von Ruck, B.S., M.D., Asheville, N. C.		209
NOTES ON APOSTOLI'S METHOD OF THE TREATMENT OF UTERINE FIBROIDS. By Plym. S. Hayes, A.M., M.D.		211
PUDENDAL THROMBUS, WITH HISTORY OF A CASE. By F. Gregg Thompson, M.D., A.M.		212
PNEUMONIA, IN WHICH THE REFORMED METHOD OF TREATMENT FAILED. By H. F. Slifer, M.D., North Wales, Pa.		213
SOCIETY NOTES.		
NEW YORK ACADEMY OF MEDICINE		214
Congenital (Double) Equino-varus, with Exsection of Both Tarsi. Dixon-Jones		214
Resection of the Astragalo-scapoid Articulation for Aggravated Flat-foot. Dixon-Jones		214
Excision of the Hip for Tubercular Ostitis. Dixon-Jones		214
The Importance of Thorough Examination in Suspected Pott's Disease. Sayre		216
Pathological Dislocation of the Hip. Townsend		216
THE POLYCLINIC.		
JEFFERSON MEDICAL COLLEGE:		
Perityphlitis. Keen		217
Accumulation of Muco purulent Material in the Throat. Cohen		217
Eczema		217
Adenitis. Rex		217
Incontinence of Urine. Parvin		218
Rapid Gain of Flesh. Bartholow		218
Eczema		218
Chills, Pain in Nipple, etc. Bartholow		218
Hernia. Brinlen		218
Acne Rosacea. Sletwagom		218
MEDICO-CHIRURGICAL COLLEGE:		
Subacute Catarrhal Dyspepsia. Anders		218
Bronchorrhoea. Waugh		218
Multiple Sclerosis. Waugh		218
Abdominal Pain and Tenderness. Waugh		218
Gonorrhoeal Orchitis. Waugh		218
EDITORIALS.		
HISTORICAL NOTE OF THE EVOLUTION OF GYNÆCIC SURGERY BY AMERICAN SURGEONS		219
ANNOTATIONS.		
Dr. Loeb's Election		220
Utilization of Sulphur Waters in the Treatment of Disease		220
Diphtheria		220
Leprosy in India		220
LETTERS TO THE EDITOR.		
Priority in Operation on Uterine Fibroids. Tranholme		220
Idiosyncrasy Towards Pruit. Clevenger		221
The Question of Patents. Shoemaker		221
BOOK NOTICES.		
Principles of Surgery. Senn		222
PAMPHLETS		222
THE MEDICAL DIGEST.		
For Gonorrhoea. Pooley		222
For Scabies. Boston Med. and Surg. Jour.		222
Spinal Curvature. Smith		223
Sulpho-calcine in Diphtheria. Kennedy		223
Appendicitis. Rand		223
Treatment of Abdominal Tuberculosis. Van Zant		223
The Anæsthetic Action of Nitrogen Alone or with a Small Proportion of Oxygen. Brit. Med. Jour.		223
Enlarged Spleen with Leucocythemia. Barrs		224
Rupture of Costal Cartilage. Heddens		224
Croelin. Irrigations in Compound Fractures. Miltra		224
Improvised Sterilized Dressings. Wyman		224
Hot Air Inhalations in Pulmonary Phthisis. Charles		224
The Treatment of Tetanus by Injection. Baginsky		225
Malignant Growths Successfully Treated by Aniline Trichloratum. Moorhof		225
The Treatment of Peritonitis by Eserin and Pilocarpin. Hoover		225
Phloridzin Diabetes. Moritz and Prausnitz		225
Hæmatozoa of Malaria. Laveran		225
Brieflets. Medical Brief		226
Naso-pharyngeal Catarrh. Willis		226
Lymphadenitis. Gerster		226
Limitations of Spinal Surgery. Abbe		227
Treatment of Irritable Bladder. Halley		227
A Case of Unusual Interest. Morris		227
Pyrexia. Smart		227
Puerperal Sepsis: Six Cases. Dannaker		227
MEDICAL NEWS AND MISCELLANY.		228
ARMY, NAVY, AND MARINE HOSPITAL SERVICE		230
NOTES AND ITEMS		iv, xii

Original Articles.

ABNORMAL REACTIONS AND ANOMALIES IN THE USE OF PROF. KOCH'S METHOD FOR TUBERCULOSIS.

By KARL VON RUCK, B.S., M.D., ASHEVILLE, N. C.,

Director Sanitarium for Diseases of the Lungs and Throat; Member American Climatological Association, American Public Health Association, Am. Med. Assn., etc., etc.

THERE are now in my private institution fourteen cases under treatment by the above method, and, in the four weeks past, during which we have applied the same, various observations have been made upon the effect of the lymph, which may be called abnormal, or at least exceptional.

Inasmuch as many who now use the lymph have not been prepared for these exceptional manifestations by personal study and observations in Berlin, and inasmuch as their appreciation alone can make one realize how exceedingly careful we must be in the management of such cases, I desire to put them before those using, or who contemplate to use, the method.

CASE I.—Pulmonary and laryngeal tuberculosis; reacted with so much swelling in the previously not especially narrowed glottis, that respiration became difficult for several hours, beginning within two hours after the initial injection of 0.0003.

This was followed by slight stupor and sleep for four hours. During this time only a very slight elevation of temperature was noted, of half an hour's duration, amounting to $\frac{1}{16}^{\circ}$ F. A similar, but slighter, reaction occurred upon repetition of the

same dose. Since then, and having now reached doses of 0.005, the general reactions of fever and malaise and nausea are becoming more prominent; the larynx, although showing distinct local reaction, does not swell, as at the first time; on the contrary, the infiltration is materially diminished, and the patient's general condition is improved.

CASE II.—Lupus vulgaris; did not react until we gave 0.01, and then only moderately. A repetition of the same dose three days later was followed by an intense reaction, including painful swelling of enlarged cervical glands, and previously unsuspected pulmonary symptoms in the right apex manifested themselves by pain and consolidation; sputum full of tubercle bacilli—all but very few much distorted and broken up.

Subsequently, this patient reacted to much smaller doses more distinctly than he did to the first dose of 0.01. The case is progressing very satisfactorily, and there is evidence of rapid repair.

CASE III.—Pulmonary tuberculosis; has never had a decided reaction in the sense of having fever or other subjective symptoms, although 0.006 has been reached, and the microscopical diagnosis is beyond doubt.

Locally, there is diminution of the consolidated area, and a distinct change from the previously bronchial to broncho-vesicular respiration. The moist sounds at first increased, but are now audible only over a limited portion of one apex upon coughing. The highest rise in temperature in this case, referable to the treatment, is less than 1° . Cough is a little more troublesome for a day after each injection. The sputum is markedly changed from muco-purulent to a gelatinous character, and the bacilli are decidedly broken up and less in number.

CASE VII.—Early stage of pulmonary tuberculosis, diagnosed from infiltration of one apex; failure of general health; slight cough; no sputum.

Trial injections up to two milligrammes showed no reaction whatever, and not until thirty hours after this dose. Now occurred a typical reaction, consisting of chill, rise of temperature $3\frac{1}{2}^{\circ}$, nausea, abdominal pain, general malaise, sensation of numbness and formication, and headache, and lasting for twenty-four hours, when a normal condition was again reached.

Next injection, of 0.0015, caused now reaction, after having previously failed; this time in eighteen hours; and, to a repetition of the same dose again, a slighter reaction occurred in a still shorter time.

CASE IV.—Pulmonary and laryngeal tuberculosis; no marked reaction up to 0.0025, when, after an increase of one-half milligramme, the patient reacted severely, reaching a temperature of 104° F.; severe malaise, pain in lower portion of affected lung, and there was physical evidence of friction sounds and increased area of consolidation; moist sounds throughout this lung markedly increased, as also did cough and expectoration; in the latter the bacilli increased more than tenfold.

This reaction lasted four days, almost unabated. On the sixth day normal conditions were reached; the consolidation had disappeared, as also all moist sounds. Now a distinct reaction followed a dose of 0.002, which had previously failed. The lung is now reacting with sensation of pain in other localities, but the previous increase in consolidation has not recurred. Generally, the patient is improved; the larynx reacts typically each time, but without causing any undue swelling.

CASE IX.—Pulmonary and laryngeal tuberculosis; has had no general reaction up to 0.005, the highest dose reached to the present time.

A marked increase in expectoration and in the number of tubercle bacilli occurs the day following inoculation, during which moist râles are increased; now they are less marked and absent in the interval, even on forced respiration. Were it not for the laryngoscope, however, we could not be positive of any reaction at all; but the larynx showed typical changes after each injection, even after the first of 0.0005 the changes were unmistakable. In the meanwhile the swelling in the larynx is already much reduced, and previously painful deglutition, which interfered with his taking sufficient nourishment, has been absent for a week past, during which there is evident gain in flesh.

All my other cases have followed a typical course; that is, the reaction was both local and general—the latter indeed varying, but all showing slight increased temperature, etc.

Recurring now to Case I, I congratulate myself upon the caution of beginning with only fractions of a milligramme. I am sure, had I produced more swelling by a larger dose, the symptoms would have proved quite alarming, with the possibility of a tracheotomy, and that in my first case treated!

Case II shows that a subsequent dose of the same size may be more active, and produce severer symptoms than the first; indeed, subsequent smaller doses may cause severe reaction. I have another case of lupus vulgaris, which reacted promptly to 0.001, and the initial doses of 0.01 I think are dangerous even in lupus patients. The latter case has only reached 0.003, and the reactions are quite as severe as I care to see them.

Case VII is instructive both as to confirming the

diagnosis, but particularly on account of the reaction to 0.002 being delayed for thirty hours, in which respect this occurrence is unique, no such delay being thus far recorded; and again, inasmuch as this patient subsequently reacted quite well to doses previously inoperative.

Had I listened to the request of the patient, and repeated and increased the injection after twenty-four hours, when it could have been supposed that no reaction to the previous dose would follow, I have no doubt I should have had occasion to regret the haste very much indeed.

Case IV illustrates how careful we should be in increasing the dosage; in this instance a most severe reaction occurring from an increase of half of a milligramme.

Cases III and IX show local reactions without rise in temperature, or the occurrence of subjective symptoms, and certainly teach the necessity of careful local examinations of the lungs, and especially of the larynx, before concluding that no reaction has occurred; and these examinations must be made at the proper time.

All these cases go to show the great care, constant professional supervision, and watchfulness necessary when using so powerful a remedy, about which, although now knowing its source and composition, we know as little as we did before, and have so much yet to learn in its clinical application.

My experience teaches me how easy it would be to overlook a slight reaction, especially when no general symptoms accompany it; and how often this might be the case with patients treated at their home, where we would be largely dependent upon the observations of the patient himself and his non-professional attendants. In our very frequent visits we would have to carry with us our laryngoscopes as regularly as our fever thermometers and make almost daily examinations of the chest, and even then the symptoms of a local reaction may have disappeared, unless our visits are extremely frequent.

Doubt and uncertainty must then prevail, and lead us to a practice so timid that it would be probably useless, or, what is just as likely, we would doubt the remedy itself and its specific effect.

The constant and reliable source from where we obtain the lymph must appear equally essential, for doubt in its strength and efficacy must at once enter our mind the moment we see, apparently, no effect or different ones than we expected.

I look, on that account, and for other and better reasons, with fear and apprehension upon the future, when, since Prof. Koch has published the source and mode of preparation of the fluid, all sorts of products will probably be offered to the profession, claiming to be after Koch's formula, and which will be eagerly used, especially by such who cannot obtain as yet a supply from Dr. Koch's laboratory. But even with the lymph from Koch's hands many disappointments are likely to be in store for us, especially in its application to advanced stages of the disease, and it is a delicate question for us to settle individually, as to where to consent to, or withhold, its use.

We certainly do not want to be instrumental to a more rapid termination of life, no matter how hopeless a case may be of final recovery, and there will for a long time, if not always, come cases to our notice, in a stage in which we cannot but feel that a trial may be justifiable, and the result proof unavailing, possibly injurious.

I have thought best at the present time to accept no case where the physical condition of the patient

made me apprehensive of rapid exhaustion from the reaction, and think that to be a safe course to follow in the future.

In the meanwhile I have seen only more or less marked improvement in every case under treatment, and have not a single patient under the method that I could regret in the least having subjected to the treatment. Indeed, two cases have already improved so much that I am in hopes of being able to be among the first to accomplish an apparent cure in this country with Koch's method.

January 20, 1898.

Since this paper was written, the author has continued the use of the lymph in an increasing number of cases, to the avoidance of all general reactions; having learned that, by timely and frequent examinations of the chest, larynx and sputum, local reactions can be demonstrated, and that increased cough, sensations of oppression, soreness, or pain, etc., frequently noted by the patient, denote the effects of the lymph; no general symptoms such as chill, fever and malaise occurring.

Doses are increased only when for two successive applications no local reaction is believed to have occurred, and up to 10 milligrammes, the increase never exceeds 0.001, frequently only 0.0005, when again symptoms of local reaction appeared. Beyond 10 milligrammes the increase is as a rule more rapid.

I have learned the fact and am convinced of it that every general reaction denotes an over-dose, and reflects the poisonous effect of the remedy, and that such febrile reactions are not only not necessary, but positively injurious; that cases, with present processes of softening and breaking down, are unsuitable for the lymph, until these conditions are overcome or limited by other means; but that eventually, even in such advanced cases, the lymph can be used with benefit; that the chills, fever, malaise and general as well as local symptoms in cases of softening and breaking down of cheesy deposits, are similar to conditions induced by large dosage with lymph, and that these symptoms in the ordinary course of the disease owe their presence to the generation of an identical substance which Koch has produced by cultivation. That Koch's remedy enables us to cause the softening, expulsion and absorption of tubercular infiltrations (cheese foci) at will, and in a degree and rapidity according to the size and frequency of the dose; and that such rapid and en masse production is equally dangerous, as is its occurrence, when coming about to such an extent in the ordinary course of the disease.

The febrile and general symptoms in tuberculosis are exactly the same, and have the same source as the reactions produced by lymph, which, dangerous already, can only become more so, by adding fuel to the already existing fire, by the use of lymph at such a period.

The greater susceptibility of tuberculous patients to lymph is in proportion to the amount, not of tubercular tissue present, but to the amount of a similar substance absorbed into the blood and present at the time of the injection, which explains some of the anomalies of reactions heretofore observed, it further depends to the degree the system has become accustomed to the poison, and which again offers an explanation why old and chronic cases sometimes show no reaction at all, even to large doses.

A uniform and better improvement continues in my cases, under my present mode of administration.

NOTES ON APOSTOLI'S METHOD OF THE TREATMENT OF UTERINE FIBROIDS.¹

By PLYM. S. HAYES, A.M., M.D.,
Professor of Electro-therapeutics, Chicago Polyclinic.

THE world-wide reputation of this treatment for uterine fibroids, the criticisms laudatory and condemnatory, the vast number of articles which have, from time to time, appeared in our medical journals, to say nothing of the monographs on the subject, indicate that there is a general interest in this conservative method of treating many of the disorders of the pelvic viscera of woman.

No one can use a method of the character of Apostoli's for any length of time without varying the technique of the operation, and giving it the imprint of his own individuality. It is true, however, that the cardinal points—the all-essentials—in the operation, should be observed in every instance. He who has best mastered the essentials will be the one who will vary his methods to suit the individual case.

Gradually, they who employ the Apostoli operation have eliminated from the theory explanatory of the ultimate results those propositions which cannot be proven. Whenever a simple explanation accounts for the phenomena observed, it is always better to use the simple and demonstrable explanation rather than one that is obscured by propositions that cannot be proven, or, if capable of proof, only so after a long course of experimentation.

One of the best demonstrated facts in the Apostoli operation is the arrest of all uterine hemorrhages excepting those cases that are due to the puerperal condition. All observers unite in recognizing that the positive pole is the one to be connected with the intra-uterine electrode. To the thinking physician the query is, "Why the positive?" And the answer comes that in electrolysis especially, when the electrolyte—the fluid undergoing electrolysis—is blood, the clot formed around the positive pole is small and dense. Knowing, as we do, that oxygen, chlorine, and the acids are liberated at the positive when electrolysis is performed on the tissues of the body, and also knowing that hydrogen and the alkalis are liberated around the negative pole, we have only to apply our knowledge of the action of the acids and alkalis respectively on the blood to explain the observed phenomena. I do not wish to be understood that the explanation of the facts on the chemical ground is the only one, but that it is the most important one. It is true that the cataphoric action of the current, as well as the physiological actions, probably are factors in this case, but only minor ones.

Casting aside all theories, however, it is at times well enough to make a demonstration of the fact appreciable to the senses. Such object-lessons many times fix the facts in the mind as no other method of acquiring knowledge will do. If, in place of using the intra-uterine electrode, a vaginal electrode, insulated where it would come in contact with the os uterini, and the metallic part covered with several layers of absorbent cotton wetted, is introduced into the vagina, and a current of from 50 to 200 milliamperes be employed, the physician can readily discover the difference between the poles that may have been attached to the electrode on a digital examination. In case the vaginal electrode is the positive, the vaginal walls will feel as though an astringent had been applied. If the negative had been the pole

¹ Read before the Tri-State Medical Association, October 16, 1896.

used, the walls would have a moist, slimy feeling, just as though an enema of strong soapsuds had been administered. In the first instance we have had the coagulating action of the acids upon the albumens of the secretion and tissues, and, in the second place, the action of the alkalies liberated by the electrolytic action. The condition, which at times militates against a complete demonstration of these facts, is when the vaginal electrode is the positive pole, and the patient has a profuse leucorrhœa and is laboring under sexual excitement during the séance. It will then be found that the astringent action is not as apparent.

Pain.—Following the use of currents of high amperage within the uterus, Apostoli remarks that "Frequently the post-operative period is even more painful than the operation itself." What is the cause of this pain? The answer is, the intra-uterine electrolysis is the cause. If the vaginal and not the intra-uterine electrode had been used under the same circumstances, no pain would have followed the treatment. If it were the electricity alone that caused this, then would the pain follow the vaginal as well as the intra-uterine application.

The answer to this problem and its demonstration suggested themselves to me as I was treating a patient by this method, but using a speculum—an un-Apostoli procedure. In this case the os uteri was somewhat patulous, and I saw bubbles of gas issuing beside the intra-uterine electrode. On removing the electrode, the froth of blood, mucus, and gas poured out in considerable quantity. Knowing how much disturbance a drop of water or a bubble of air will many times occasion when introduced into the uterine cavity, it occurred to me that the liberated gas was the cause of the pain, and that the duration of the pain was measured by the time that was required to either expel the gas or allow its disappearance by absorption. The amount of post-operative pain is, according to Apostoli, "Generally in proportion to the intensity of the operation itself." I also noted the fact that in those cases in which the os uteri was patulous and allowed the free escape of gas, that the pain were usually of short duration, and comparatively insignificant.

Acting on these hints, I one day took up a uterine dilator, introduced it into the uterus, after I had used Apostoli's method, and separated the blades sufficiently to allow the escape of any gas or liquid that might have been within the uterus. I was rewarded by seeing a quantity of froth issue from the slightly dilated os uteri. My patient, who was of more than average intelligence, was notified as to what had been done, and reported that the pain after the operation was markedly less whenever I allowed the gas to escape. Since then it has been my practice to allow the gas generated by the electrolysis to pass away, and I have yet to see the case in which I have regretted having done it. The evidence that the pain is due to the gas, if not demonstrated, is strongly presumptive, to say the least of it.

The Conductivity of the Human Body.—It is of universal observation that the battery force necessary to produce a deflection of the milliamperemeter, indicative of say 100 milliamperes (the patient being in circuit), would be decidedly different in the same patient on different days—all other conditions remaining the same. This has been explained, to some extent, by the condition of the patient's skin. When moist, the battery force required would be less than when dry. The condition of the skin does not wholly explain this fact, especially when the abdominal elec-

trode so thoroughly and speedily moistens the surface of the skin. A factor that I do not ever remember of having seen mentioned in this connection, is the distension of the intestines with gas. Gas being a non-conductor, acts not exactly as an insulator, but rather by putting the intestines on the stretch, and makes them a much poorer conductor of electricity than as though their walls lay in contact with each other, or with their semi-fluid contents; then again, the distance between the electrodes is much less when there is no gas than when gas is present.

This uncertainty of the amount of current obtained from a definite number of cells of a battery only emphasizes the fact that a milliamperemeter is all essential to exact dosage. While it is possible to relieve and cure by means of a galvanic current without the use of a milliamperemeter, nevertheless the satisfaction that one has in knowing at all times the exact strength of current used in the operation is ample to pay many times over the cost of this instrument of precision.

The Occurrence of Uterine Hemorrhage does not Contra-indicate the use of this Method.—One of my patients suffering from menorrhagia came to my office, stating that she was drenched with the discharge and came for relief, as it was much easier for her to come to my office than to go home. The excessive flow did not occur until after she had come down town. I used the intra-uterine electrode connected with the positive pole, and allowed a current of from 60 to 80 milliamperes to pass for eight minutes. She went home, a distance of three miles, and was in bed the remainder of the day. The next day she was about the house and the flow had nearly ceased. This period was by far the least severe she had had in several months, and the amount of time spent in bed was three-fourths less. The flow was diminished in like amount.

Should opportunity again offer itself to use Apostoli's method during a non-puerperal hemorrhage, I should not hesitate to use it as the best means of securing its arrest.

Conclusion.—The above random notes, not arranged with any reference to system, or without any attempt to give the outlines of an operation so well recognized and described by its originator in such clear language that "the wayfaring man though a fool need not err therein," were written to emphasize certain facts which may be of interest to those using this method, and also suggest certain changes in the technique of the operation that will moderate the sufferings of those who have to undergo this somewhat severe, though comparatively dangerless, operation. Should these notes be the means of relieving the sufferings of a single unfortunate patient, I shall consider the time consumed preparing them well spent.

75 MADISON ST.

PUDENDAL THROMBUS, WITH HISTORY OF A CASE.

By F. GREGG THOMPSON, M.D., A.M.,

Professor of Physiology and Hygiene, Ensworth Medical College, St. Joseph, Mo.; late Resident Assistant, Burnside Lying-In Hospital, Toronto, Can.

PUDENDAL thrombus arises from rupture of blood-vessels during or immediately following labor without external loss of blood.

Causes.—1. Vascular distention of pregnancy.

2. Obstruction to venous return by the presenting part.

3. Increase venous pressure caused by bearing-down efforts.

4. Operative interference.

The true seat for this trouble is the lower part of the vagina and the vulva, where the vascular supply is abundant; but extravasations also occur in the perimetric tissue, before and behind the uterus, the fascia of the perineum and adjacent cellular tissue, where much functional disturbance may arise from pressure on the bladder and rectum. These swellings may be so tense and hard as to obstruct labor, and they have sometimes ruptured, causing a fatal hemorrhage. In other cases they may not attract notice till after delivery, and become absorbed without forming any external opening. This is much to be desired, as the unbroken skin lessens the amount of blood extravasated by its tension, and limits the chance of septic infection from without. Large tumors rupture sooner or later as a rule, by inflammatory process. The swelling usually occurs rapidly, and the patient complains of a tearing acute pain in the part affected, radiating down the thighs. If the amount of effused blood be extensive, anæmia and the usual symptoms of shock from hemorrhage are present. Thrombus of the vagina or vulva probably does not occur more often than one in two thousand cases, but the prognosis has been so grave, if the swelling be at all large, that we should be exceedingly careful in its treatment.

Winckel gives a report of six deaths out of 67 cases, or 12.7 per cent., and the mortality is placed higher by other authorities. Under favorable circumstances, however, better results should be obtained.

Hemorrhage, primary and secondary, has caused death in some instances; but above all other dangers that have to be contended against, the most serious is septic infection from the nidus, afforded by sloughing tissue, decomposing clots, and burrowing abscess.

Treatment.—If the presenting part be causing it by pressure above, it should be relieved by delivery with the forceps as rapidly as possible. If delivery be delayed by the size of the tumor, it must be incised, and the bleeding is prevented by the pressure of the head coming quickly over the opening, and pressure with compress will in most cases stop the hemorrhage after delivery. Styptics should not be resorted to unless in extreme instances. Pressure may also be made with a hydrostatic dilator filled with cold water in the vagina. If the thrombus is not opened after delivery, and does not continue to increase in size, and there is reasonable hope for its absorption, it should be left alone. If, however, it is increasing in size, or if signs of suppuration, with a sloughy surface, and general signs of septic absorption are present, a fairly free opening should be made at a dependent part, better at the inner side of the labium magnum, and the clots turned out, exercising care for secondary hemorrhage. Remove any sloughing and loose bits of tissue, syringe with an antiseptic solution, and pack loosely with iodoform gauze. Change the dressing frequently, being careful to reach every ramification of the cavity with the antiseptic wash.

Mrs. F., aged thirty years, was in labor twelve hours. Head presentation, first position; head pressing on the perineum when I arrived. I noticed some swelling of the left labium, and after labor it gradually increased to the size of a large orange. I was afraid to open it on account of hemorrhage, and applied pressure; next day it was quite firm and hard, and on the second day after the patient complained of a good deal of pain, and the tumor caused distress by pressure on the urethra. The surface became

dark, and there was considerable hyperæmia of the surrounding parts, so I concluded to open it, which I did under strict antiseptic precautions. There was a firm blot, irregular in shape. The cavity was gently, but thoroughly washed out by 1-2,000 bichloride, followed by plain boiled water to remove any excess of the antiseptic that might remain, and very little bleeding occurred. A loose packing of iodoform gauze, and a compress applied, and the patient kept quiet. This was done every six hours for four days, and then three times daily, besides the vagina being kept aseptic, and although the cavity was large and very irregular, so that drainage was difficult, the temperature never went up, and no pus formed throughout the entire process of healing, which was rapidly effected, the patient leaving my care on the fourteenth day.

EIGHTH AND FELIX STREETS.

PNEUMONIA, IN WHICH THE REFORMED METHOD OF TREATMENT FAILED.

BY H. F. SLIFER, M.D.

NORTH WALES, PA.

THE subject of this case was a girl fourteen years old, well developed, weighing one hundred and seven pounds, and enjoying good health. On the 20th of November, while at school, she began to complain of headache, dull pain in the limbs, back, and lumbar region, with mild creeping chills.

November 21 she presented the following symptoms: Thirst, elevation of temperature, acceleration of pulse, flushed face, inclined to sleep and moan, accelerated respiration and cough. Headache of a throbbing character, pain in the chest, and general aching of the body.

Physical examination revealed slight dullness over both lungs, and cupitant râles.

I prescribed aconite to reduce the circulation and act on the skin; calomel, until the bowels were thoroughly unloaded; mustard plasters on the chest and cold to the head.

November 22, the symptoms as above indicated, were intensified. Pulse, 110; respiration, 40; temperature, 103; marked dullness over both lungs, crepitant râles general, and headache continued with mild delirium, cough with blood stained expectoration, and dyspnœa.

I ordered antifebrin and Dover's powder, and the following:

1. R.—Ammonia carb. 3jss.
Tr. digitalis. 3j.
Fl. ex. jaborandi. 3ij.
" " senegæ. 3ss.
Syr. ipecac.
" tolu. āā 3j.
M.—S. Teaspoonful in water every two hours.

November 23, 8 A.M., pulse, 120; respiration, 50; temperature, 104, decided dullness of both lungs, few râles, but instead bronchial respiration and bronchophony, and pronounced dyspnœa, headache and delirium continued, cough and expectoration scant. I discontinued antifebrin and Dover's powder, and ordered:

2. R.—Strychninae gr. ss.
Quininae sulph. gr. xxx.
Acid. muriat. dil. gtt. xv.
Syr. tolu.
Aqua āā 3ij
M.—S. Teaspoonful every three hours.

At 5 P.M., pulse, 130; respiration, 58; temperature, 105, flushed face, a countenance expressive of suffer-

ing, intense dyspnoea and struggling for breath, lips and fingers blue, and extremities cold and clammy.

It was evident that this deplorable condition of my patient could not last long, unless some means for relief were at once brought to bear upon it. I immediately proceeded to open a vein in her arm, and removed eight ounces of blood.

This produced a marvelous change in her condition, the blueness of the lips and fingers disappeared, her breathing became regular and deeper, and she expressed herself as feeling better.

At 11 P.M. her condition was almost as formidable as in the afternoon. I again removed eight ounces of blood from the arm with the same beneficial result. Prescriptions No. 1 and No. 2 continued, with as much nourishment as she could take.

November 24, 8 A.M. During the night she was restless, with mild delirium. Pulse, 128; respiration, 50; temperature, 105; face flushed, considerable difficulty in breathing.

At 2 P.M. her condition was exceedingly unfavorable, suffering from intense dyspnoea, face and hands cyanotic, respiration quick and irregular, heart nearly exhausted, and distress depicted on her countenance.

I now bled her for the third time, since the previous operations rendered me such excellent service. I felt assured that she would again be relieved. This time I took thirty ounces of blood from her arm, after which she breathed better, pulse reduced in frequency, cyanosis disappeared, and her mental condition much improved. That night she partook more freely of nourishment, and rested better than any time previous. I continued the treatment as before.

November 25, general improvement of the case; pulse, 100; respiration, 40; temperature, 101; breathing full and regular, face pale, her intellect clear, and disposed to converse about her condition. Percussion dullness decidedly less over both lungs, and crepitant râles more numerous.

From this time on she improved. Her lungs cleared up with unusual rapidity, and made an uninterrupted recovery.

Society Notes.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPÆDIC SURGERY.

SAMUEL KETCH, M.D., Chairman.

DR. CHARLES N. DIXON-JONES, of Brooklyn, reported a case of

CONGENITAL (DOUBLE) EQUINO-VARUS, WITH EXSECTION OF BOTH TARSI,

and exhibited casts and photographs, as well as the patient.

Kate M., eleven years old. A few weeks after her birth the feet had been tenotomized, and an apparatus worn ever since. On February 29, both feet were operated upon by Phelps' open incision and forcible rectification. In November of the same year, a wedge of bone was removed from the cuboid in both feet. She was then treated by water-glass and plaster splints until early in 1889, when she disappeared for several months. On her return, there was found to be a considerable relapse, with inversion of the feet and fixation of the joints of the tarsus. On November 29, 1890, the operation of Mr. Davies Colleys for resection of the tarsus was performed on both feet. At the end of four weeks the feet were in good

position, and the wounds were nearly healed. This case was a very intractable one, and was the only one out of a number of cases of club-foot in the author's experience, where it was found necessary to resort to tarsal resection.

The second case was one of

RESECTION OF THE ASTRAGALO-SCAPHOID ARTICULATION FOR AGGRAVATED FLAT FOOT.

The patient and photographs were exhibited.

K. K., ten years of age. The deformity caused great suffering. On examination it was found that the inner side of the right foot in its whole length rested upon the ground. The astragalo-scaphoid joint formed a well-marked prominence. On the first of February, Ogston's operation was performed. The plaster splint was continued for eight weeks. She now walked comfortably.

Dr. Jones also reported two cases of

EXCISION OF THE HIP FOR TUBERCULAR OSTITIS.

Tillie C., a delicate girl of four years of age, had suffered from the disease for eight months. Owing to high temperature and great pain it was decided to operate. The diseased bone was removed by a free incision, which gave exit to several ounces of pus. The diseased acetabulum was thoroughly curetted, and an extension apparatus applied. After the operation, the patient experienced marked relief, and the temperature remained normal. The first dressing was removed at the end of a week, and the subsequent ones were made about every four days, with the patient under an anæsthetic, and the parts were thoroughly curetted. The patient is able now to run and jump without any apparatus, and there is only one inch shortening.

The second case of excision was that of Annie M., who had had a tubercular coxitis for about one year. She was three years old, had never walked, and the pain was sufficient to seriously interfere with sleep. There was a fluctuating swelling over the joint. On November 3, a similar operation to that just described was performed, and the wound was treated openly, according to the method advocated by Mikulitz. Recovery was rapid and uninterrupted.

The author felt confident that the frequent erosions of the joint surfaces formed an important element in the termination of the tubercular process.

DR. V. P. GIBNEY said that he assumed that in the first case the club foot was probably the result of poliomyelitis, the anterior and posterior tibial muscles being chiefly affected; and that in the effort to bring down the heel, flat foot had been produced. He thought that a still further improvement would follow the division of the tendo Achillis. The case seemed to him to be a good illustration of the necessity of continuing the use of protective apparatus for some time after such separations, for the history stated that the patient, while still wearing only a plaster or water-glass splint, passed from observation for some time, and when next seen the plaster had been discontinued and the case had relapsed. The child walked rather tenderly, and the ankles rolled outward. The left foot could not be brought quite up to 90 degrees, and he perceived in it indications of a probable relapse. In such an event he would suggest that the astragalus be removed, according to the method of Morton, of Philadelphia. Nothing is lost by the removal of this bone, because it is really subluxated forward, and the claim which has been made that after this operation the malleoli rest upon the os calcis is of no significance, as they rest there before

the removal of the astragalus. He had been surprised at the ease with which he could reduce the deformity after getting rid of the astragalus.

DR. ROYAL WHITMAN considered the result obtained in the case of flat foot a good one, but he did not approve of this class of operations. In this instance, a child of ten years had been confined to bed for ten weeks. If the foot had been over-corrected under ether, and placed in a plaster bandage for the same length of time, even without the use of any apparatus, the result should have been equally good, and with the help of the apparatus and exercises, a very much better result might have been obtained without any cutting operation. Such operations, in his opinion, were unscientific.

DR. A. B. JUDSON remarked that the occurrence of flat foot as a result of infantile paralysis was rather unusual; it more commonly resulted in equino-varus or calcaneo-valgus.

DR. R. H. SAYRE did not agree with Dr. Judson that equino-valgus was rare after polyclitis when the anterior tibial muscle happened to be the chief one involved. The child was unable at present to hold the foot in that position in which it was normally held by this muscle. Under these circumstances there is but little doubt that the deformity will recur. He did not believe that there was any such thing as a relapsed club-foot; such cases were simply instances of imperfect cures, in which the patients had been unable to voluntarily retain the foot in its normal position. A tenotomy of the tendo Achillis with retention of the foot for a long time in a corrected position would have answered in this case without any operation, although he thought the result obtained was one of the best that he had ever seen after an osteotomy for flat foot. Unless the foot could be brought to an angle of about 120 degrees, locomotion, except with a high sole, was imperfect; yet in all the cases of removal of the astragalus which he had seen, the feint between the astragalus and the tibia prevented the foot going beyond the right angle, and on this account he considered it inferior to the other operations. Fitzgerald, of Melbourne, had advocated a method of procedure which might almost be said to consist in reducing the whole tarsus nearly to a pulp by a series of osteotomies, and then molding the foot into the desired position, and holding it there with a plaster bandage. His published results of operations on some very badly deformed feet certainly appear most excellent.

DR. JONES' exsection of the hip joint had yielded a remarkably beautiful result, and certainly it was preferable to obtain a joint with such good motion than to endeavor, as do many of the foreign surgeons, to obtain ankylosis.

Dr. Jones said that he considered Dr. Gibney's criticism on his first case a very just one. As to the second case, it was difficult to describe the many difficulties that he had encountered, and he had come to feel that nothing short of the heroic method of Dr. Fitzgerald would ever make it a good foot.

The Chairman presented a case which he had first seen in 1887. The young man was then in his fifteenth year. The family history showed freedom from rheumatism and joint disease, but there was phthisis on the maternal side. Nearly two years before this time the right knee became swollen, and one year later the ankles also swelled, and shortly afterward the left knee became similarly affected. His general health had always been good, and no cause could be assigned for this condition. Examination showed the right knee to be the seat of a large,

doughy swelling; there was no pain on motion, and the movements of the joint were only limited by the mechanical obstacle offered by the swelling itself, and this only in extreme flexion. There was no elevation of temperature, either general or local. By hypodermic puncture a perfectly clear, colorless, syrupy fluid was withdrawn. He was treated first by plaster bandages, and afterward by elastic compression, counter-irritation, and systematic massage of the joints. The progress of the case had been slow and variable up to a few months ago, but since then it has been uninterrupted. There was still some fluctuation and enlargement of the right side, but he expected that the patient would ultimately recover completely. The case had been diagnosticated as hydrarthrosis.

DR. GIBNEY said that the case was interesting, both on account of its comparative rarity and the excellent result which had been obtained.

DR. A. M. PHELPS had been accustomed, in many of these cases of effusion into the joints, to open the joint and wash it out with a 1-2,000 solution of bichloride, and he considered that it not only shortened the period of treatment, but was a safe practice, and gave equally good results as the more common method of treatment. He had often treated dispensary cases by this method, and, after being in plaster of Paris for some time, they had been discharged in three months' time with good result. It was not uncommon to find fibrinous material as well as serum in the joint, and the removal of this along with the serum was beneficial, and the bichloride irrigation tended to excite a healthy inflammation of the synovial membrane, which hastened the process of recovery. We had been led to believe that these tubercular joints were always purulent, but he had occasion to examine many such joints microscopically, and had found the tubercle bacilli frequently present where there was no suppuration in the joint.

The Chairman, in closing the discussion on this case, said that it would be difficult to obtain the consent of most private patients to such an operation in a case like this, where there was so little disability or discomfort, and he thought the operation not only dangerous in itself, but liable to result in a tuberculous case, in a general infection of the system.

The Chairman also presented a man, thirty-six years of age, whom he had first seen two days before. He gave a good family history as regards phthisis, joint, and spinal disease, and said that he had enjoyed fair health, excepting several attacks of rheumatism, the first of which occurred at ten and the second at fourteen years of age. The third attack was severe, and occurred ten years ago, and involved only the right ankle. There was no venereal history. Two and a half years ago he was exposed for eight hours, at night, to wet and cold, and this was followed by pain in the left hip, passing down the side of the leg to the knee, and then across the small of the back to the right hip. After that, he noticed his joints becoming stiff; yet there had been no pain, only a feeling of soreness upon motion. Both hip joints have very little motion, adduction only allowing of the internal malleoli being brought within about thirteen inches of each other. The arms and hands are quite free, but there is slight restriction to the movements of the jaws. The patient states that he has been examined under ether, and that while under the influence of the anæsthetic the motion of the joints was increased.

DR. R. H. SAYRE said that the improvement which the patient had been instrumental in pro-

curing in his own case by constant efforts during the past six months to move the joints, suggested an appropriate line of treatment. Slight daily motions of the joints should be made while the patient is immersed in a bath at a temperature of 110-115 degrees. Such massage was more successful when aided by these hot baths, or by hot fomentations to the joints. He recalled one patient whose joints were so generally stiffened that she had been lying around almost helpless for three years, who, as a result of this treatment, was now able to walk without a cane, and with the motions of the elbows and shoulders very much improved. Such results were by no means exceptional, and he would be quite hopeful of decidedly improving this man's condition in the same way. When the joint is inflamed and tender, massage may render the inflammation sufficiently severe to cause ankylosis, but this man had been free from pain for a long time.

DR. GIBNEY heartily approved of the suggestions which had been made; but he nevertheless believed that Dr. Sayre had had a singularly fortunate experience, and that usually these cases were very disappointing.

DR. PHELPS said that if this were a case similar to the one exhibited in the museum as "the ossified man," the hips, vertebrae, and even the jaws would become ankylosed in spite of treatment.

The Chairman, in closing the discussion, said that he had seen a number of these cases, and his experience had been unfortunate. The case should be classified as a rheumatoid arthritis, and this disease terminates in ankylosis. There were times in the course of the affection when there would be temporary amelioration. He did not favor operative procedures in such cases; but he thought the patient might be benefited by a course of massage and baths at the Hot Springs.

DR. R. H. SAYRE read a paper on

THE IMPORTANCE OF THOROUGH EXAMINATION IN SUSPECTED POTT'S DISEASE.

He said that although in childhood the signs of Pott's disease are usually so marked as not to be confounded with other troubles, in adults, especially in females, there are times when the diagnosis is not clear. In some cases of uterine displacement and ovarian disease, the reflex pains, the posture and gait, may simulate Pott's disease so closely as to be mistaken for it by competent observers. Several such cases had fallen under the writer's notice.

In the first case which the author related, a lady, twenty-six years of age, had received an injury of the right hip, which was followed by severe pains in the back and lower extremities. These pains were worse at night, and were so severe that she consulted a prominent Philadelphia physician. He pronounced the case one of Pott's disease, and applied a leather corset. This made her worse, and there was less of power in the arms and legs. The jacket was then removed, and she was advised to rest in bed for two or three years, but this advice was not followed. Two prominent New York physicians made the same diagnosis, and various braces, and finally plaster, were applied without benefit. She was still wearing the plaster jacket when she first came to the author. She could then walk only with difficulty; she was bent forward, and every jar caused pain. There was rigidity of the spinal muscles, and she complained of the girdle sensation and of pains in the lower part of the abdomen and down the thighs. The uterus

was found to be retroverted and bound down by adhesions. An Alexander's operation, followed by the use of a pessary, faradism, and gymnastics restored her to health.

The second case had had a spinal posterior brace applied by a London surgeon for supposed spinal diseases. She complained of pain in the back and lower part of the abdomen. The uterus was retroverted, and the ovary prolapsed, and treatment directed to the relief of these conditions, soon brought about a cure.

The third patient had worn various kinds of apparatus, and an examination showed a very slight knuckle in the dorsal region, which was thought to be due to an exaggeration of the physiological curve from her habitual stooping position, resulting from the abdominal pain from which she suffered. Her retroversion was corrected with a pessary, and she has since been free from pain.

The last case reported in the paper was that of an anæmic girl, with a marked stoop, and a projection in the lumbar spine, with pain in the back, abdomen, and legs. She gave a history of dysmenorrhea, and the uterus was found markedly anteflexed. Tonics and general faradism improved her, and she has been without any support for over a year without increase of the symptoms of Pott's disease.

In summing up the subject, the writer said that the description of these cases showed that the mistakes in diagnosis had been made by men of large experience, and he had, therefore, thought it worth while to call attention to the fact that reflex pains from pelvic irritation might easily lead one astray in considering cases of supposed Pott's disease.

PATHOLOGICAL DISLOCATION OF THE HIP.

DR. W. R. TOWNSEND presented a specimen of this condition, which had been removed from an Italian girl, fourteen years of age. The head of the femur was very deeply eroded, and was dislocated on to the dorsum illi. There was marked erosion of the pelvic bones, but no perforation of the pelvis.

Dr. Townsend also presented a specimen illustrating acute arthritis in an infant of eleven months. There was no known cause for the condition, which had lasted for two weeks prior to admission. There was a large gluteal abscess, and the movements of the hip were somewhat circumscribed. As there were evidences of septicæmia, an operation was performed, with a view of securing proper drainage. The child died of exhaustion, and at the autopsy it was found that, although the drainage was excellent and the granulations appeared healthy, the head of the bone was eroded, and the external sinus communicated with the joint capsule. The viscera were perfectly healthy.

DR. JUDSON said that the specimen illustrating pathological dislocation of the hip recalled a discussion which took place a few years ago on the question of the possibility of this dislocation. Dr. March, of Albany, argued that Dupuytren, Astley Cooper, C. Bell, Brodie, Lister, Fergusson, Miller, Gibson, Carnochan, and a host of other authorities were wrong in considering spontaneous dislocation in hip disease as a frequent occurrence. He declared that, as purely the result of morbid action, unaided by superadded violence, it seldom, or never, took place. He visited forty pathological museums in all parts of the world, and failed to find evidences of this lesion. His forcible article in the transactions of the American Medical Association, 1853, excited great opposition, and Dr. Hayward, of Boston, in his surgical

reports, 1855, said it would require more specimens than would fill forty, or forty thousand, museums to convince him that a certain specimen, which he described, was not the result of spontaneous dislocation.

Before this discussion, spontaneous dislocation was supposed to be a very common incident of hip disease, in spite of the doubts expressed by Baron Larry, and the statement by Wickham, in 1833, that it is of very rare occurrence. That dislocation is very often simulated when not really present is not generally conceded. Dr. Gibney showed a specimen to the Pathological Society in 1877, in which dislocation was simulated by an appearance due to the altered direction of the neck of the femur. But that it sometimes does occur is clear enough from the fine specimen in Dr. Townsend's hands.

There is another pathological dislocation of the hip that is worth considering from an orthopædic standpoint—*i. e.*, that thought to be produced by distension of the capsule in the synovitis following continued fevers, as set forth by Dr. Keen in the Fifth Tener Lecture in 1877. He had recently examined a convalescent from typhoid fever, in whom there was great impairment of motion and a distended capsule. Osteitis was eliminated by the history of the case, and by the absence of atrophy and natal asymmetry. The patient was warned against undue disturbance of the joint, and recovered without dislocation, and without any special treatment. The subject is practically important, because it is generally believed that serious joint diseases not infrequently have their origin in fevers.

DR. GIBNEY said that he would like to know whether Dr. Townsend thought the child might have been saved if the head of the bone had been excised. A number of years ago Dr. Yale read a paper on excision of the hip before the Surgical Society, and among other conclusions he stated that the best antipyretic for septicæmia was excision of the hip.

DR. TOWNSEND replied that there was marked septicæmia present at the time he had operated and drained the abscess, so that he doubted if the result would have been different had he excised the head of the bone. He thought, however, that an earlier operation would have saved the child's life. He had recently seen in Bellevue Hospital a man suffering from aggravated septicæmia due to absorption cellulitis of the leg, who was so ill that it was feared he would die on the table during the amputation of the thigh; yet, instead of this, the amputation was followed by a very rapid improvement in his general condition.

The Polyclinic.

JEFFERSON MEDICAL COLLEGE.

PROF. KEEN was called to see a young man nineteen years of age, suffering from perityphlitis of nearly four days' standing. The patient was undergoing most agonizing pain. As the case demanded immediate relief, Prof. Keen decided to operate at once, which he did before the class. The patient's story was somewhat as follows: Prior to the present attack he had been perfectly well. He complained of severe pain radiating over the abdomen; bowels constipated since the beginning of the attack; in the right iliac region the abdominal walls were perceived to be tense and resisting; with dullness on percussion; œdema not marked. There had been no vomiting. The parts having been rendered

thoroughly aseptic, an incision was made obliquely over the vermiform appendix. Having gone through the deeper structures of the abdominal wall, an abscess was encountered. An incision was made into it, and a large quantity of extremely foetid pus discharged. A portion of the omentum was found glued down to a gangrenous mass, which proved to be the appendix. Both the appendix and a portion of the omentum were ligated and excised. The peritoneum had been ruptured, and most probably some of the putrid material had escaped within the peritoneal cavity. Owing to the latter accident, Prof. Keen entertained very little hope of the patient's recovery; however, he thought that by observing the most rigid antiseptic precautions, the prognosis would be rendered very much more favorable.

Dr. Cohen in treating a clinical patient who was suffering from the accumulation of muco-purulent material in the throat, and which the patient said "dropped down by drops" from the superior part of the pharynx, ordered the parts to be cocainized, and the orifice of the duct, from which the discharge came, to be thoroughly curetted; and the local application of the following:

R.—Iodi..... gr. v.
Potassii iodidi..... gr. xxx.
Glycerini..... f3j.

In an eczematous case the following was recommended: a carefully regulated diet, and

R.—Vini ferri f3ss.
Magnesii sulph..... f3j.
Acidi sulphurici dilut..... f3j.
Sodii chlorid gr. x.
Infus. quassiae..... q. s. ad f3iv.

M.—S. A tablespoonful in a glass of hot water, a half an hour before breakfast.

Dr. Rex, at a recent clinic, presented a case of adenitis. The patient, a child, was perfectly healthy at birth; history good on the maternal and paternal side; the patient is pale, emaciated, is at times languid and drowsy; the cervical glands are very much enlarged; there is also torticollis of the same side. In speaking of the case Dr. Rex said: That glandular enlargement in the young seldom, if ever, went on to suppuration; resolution generally taking place; the reverse is generally the case in adults, and, moreover, glandular enlargements may be purely local in their origin, producing local results. In treating this disease, sanitation is imperative. The patient should be put upon a nutritious and easily assimilated diet; a salt bath each night on retiring, and for the purpose of building up the system any one of the following: cod-liver oil, malt, iron, cinchona. Poultices should not be used. Either of the following will be found beneficial:

R.—Ung. hydrargyri,
Ung. belladonna..... āā q. s.
Sig. Apply locally.

R.—Plumbi iodidi..... f3ss.
Ung. simplicis..... f3j.
M.—S. Rubbed in three times daily.

And internally:

R.—Ferri pyrophosphat..... gr. j.
Potassii iodidi..... gr. j.
Syr. limonis..... gtt. xx.
Aquæ..... q. s. ad f3j.
M.—S. Before meals.

With a teaspoonful of cod-liver oil after each meal.

In a case of incontinence of urine, Prof. Parvin prescribed the following :

R.—Ferri sulphatis exsiccata..... gr. j.
Ext. b. l. adonnæ alcoholic..... gr. ʒ.
M.—S. In pill, four times a day.

In the case of a woman presenting at the clinic, who was gaining flesh very rapidly, and had frequent attacks of pain in the stomach, followed by depression ; Prof. Bartholow advised that she be placed on carefully regulated diet, not flesh forming food, active exercise in the open air, and a few drops of Fowler's solution three times a day to assist the digestion, and act upon the nervous energy.

For a case of eczema the following lotion was prescribed :

R.—Zinci carbonat præcip..... f3ij.
Zinci oxidi f3ij.
Glycerini f3iv.
Aquæ destil. ʒj.

Prof. Bartholow, in treating a clinical patient with the following symptoms—the patient had had several chills ; pain about the left nipple ; quick, hurried, short respiration ; on auscultation, a creaking, leather sound was elicited—advised the removal of the collecting fluid by the aspirator. Prof. Bartholow, in speaking of this disease, regarded opium as the proper remedy in the first or inflammatory stage, and later, after effusion has taken place, he recommends pilocarpine.

Prof. Brinton, in lecturing upon hernia, said that, where it was desirable to keep up a daily evacuation of the bowels, fluid extract of cascara was an excellent remedy for this purpose, given in gtt.xx-xxx two or three times daily.

Dr. Stelwagon in acne rosacea recommends :

R.—Sulphuris precip.,
Ichthyolis..... āā f3j.
Adipis..... f3j.

M.—S. To be rubbed on thoroughly at night.

Or the use of Vleminck's solution, which he regards as an excellent application in this disease.

MEDICO-CHIRURGICAL COLLEGE.

SUBACUTE CATARRHAL DYSPEPSIA.

THE case which I bring before you to-day is that of a man fifty-seven years of age, by occupation a printer. He has had hemiplegia for eleven years, and twenty years previous to the attack he had a chancre with marked secondary eruptions. This was not what he complained of when he applied at the dispensary, but a gastric trouble concerning which I wish to speak about to-day.

For the past year he has vomited every morning a thick tenacious mucus. He also suffers constantly with eructations of gas and sour liquids. His bowels are regular, liver not enlarged, a slight feeling of tenderness at the cardiac end of the stomach, and a feeling of uneasiness after eating. The papillæ of his tongue are enlarged and red. I wish here to differentiate between atonic and catarrhal dyspepsia. This vomiting of tenacious mucus in the morning is very liable to occur in the atonic form from anæmia and a weak circulation.

Alcohol, over-eating, syphilis, gout, hepatic and renal derangement are causes of catarrhal dyspepsia. This patient has never been addicted to alcohol, and has always been a moderate eater. Anything which

will lower the vitality may occasion atonic dyspepsia. There are many symptoms in common between these two diseases, but they are always more marked in the catarrhal than in the atonic form. The thirst is not so great in the latter, and the tongue is generally clean unless associated with hepatic trouble. In the former the tongue is small, papillæ enlarged and red at the top and edges. A torpid liver and constipation may occur with both, if associated with catarrh the tongue is large and furrowed.

The pain in atonic dyspepsia is not in the stomach, but the patient complains of intense frontal or vertical headache. The urine in this disease is loaded with phosphates and oxalates. In the catarrhal form the urine is febrile and contains great quantities of urates. In the atonic form there are periods in which the patient does not suffer, but in the other disease it is only interrupted by exacerbations.

This man has been vomiting every morning for a year. He has a history of syphilis, and I should diagnose this a case of subacute catarrhal dyspepsia.

The first thing to do in the treatment of such a case is to give the stomach rest. We will allow this man nothing but milk, predigested if necessary, for the first two weeks. For the thirst and burning sensations we will order mucilaginous drinks slightly acidulated with hydrochloric acid ; after that time we will allow him a soft boiled egg in the morning, an occasional lamb chop and boiled rice. Early in the morning he will take a saline purgative, and between meals an alkaline-carbonate mineral water.—*Anders.*

In an advanced case of bronchorrhœa, in a woman fifty years of age, great relief followed the use of chloride of ammonium lozenges.—*Waugh.*

MULTIPLE SCLEROSIS.—Hypodermic injections of hyoscine hydrobromate, gr. $\frac{1}{10}$, were followed by some improvement in the tremor, but such decided narcotic effects that the drug had to be stopped.—*Waugh.*

For a woman sixty years old, stout and plethoric, with abdominal pain and tenderness, diarrhœa alternating with constipation :

R.—Euonymin gr. v.
Hydrastin gr. xx.
Ext. nucis vomicæ..... gr. v.
Oleoresin capsici. gr. ij.

M.—et in granul. No. xx.

S. One after each meal.

—*Waugh.*

In a case of gonorrhœal orchitis, the scrotum was covered with a paste of bismuth and mucilage of acacia. The symptoms were relieved almost as quickly as when nitrate of silver is used, and without pain or blistering.—*Waugh.*

THE Kansas City Medical College has recently decided irrevocably upon four years' study, with three full courses at college. The faculty contemplated the change last year, but not being able to get other leading colleges in the West to adopt the three-course plan, change was not thought best. Now, however, the faculty has taken decisive action, without asking others to join them, in the advancement of medical education. The action of the faculty is highly commendable, and will place the Kansas City Medical College in the position it should have fearlessly occupied several years ago. We hope to see all the colleges in the West, that have not made the same positive announcement heretofore, follow the example.

—*Kansas City, Med. Record.*

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HISTORICAL NOTE OF THE EVOLUTION OF GYNÆCIC SURGERY BY AMERICAN SURGEONS.

THE following brief account of the exploits and discoveries of the great American masters of gynæcic surgery, in so far as they work epochs in the evolution of the art, are facts with which every American surgeon should be familiar.

The list of American surgeons who have won distinction in the surgical treatment of diseases of women is surely as large as that of any other country, and the aggregate of their achievements has made as lasting impress on the development of the art as the work accomplished by their collaborateurs in other lands. The native ingenuity displayed by American surgeons, their keen penetration and sound judgment, and their capacity to devise and improve upon surgical measures for the relief of the diseases peculiar to women—advanced or suggested by operators in other lands—is a well-established fact, many examples of which could be readily cited.

Moreover, aside from the operators who have won especial renown in, and the writers and teachers of, this special branch of surgery in this country, probably no other country will show as great a mass of the profession so well grounded in the science, and so conversant with the operative procedures, as the profession in the United States.

First, then, in this list of honor, is the name of Dr. Ephraim McDowell, of Kentucky, the father of ovariectomy, who first performed the operation of ovariectomy in Danville, upon a Mrs. Crawford, in December, 1809. The operation was successful—as were two similar cases occurring in the next seven years. When Dr. McDowell first reported the case of Mrs. Crawford; “when we remember the fact that the first operation for the removal of an ovarian tumor was performed before the days of anæsthesia, and that Dr. McDowell had none of the advantages of trained assistants and the perfected instruments which are now deemed so essential to the success of

this operation, the courage of the woman and the skill and intelligent daring of the surgeon combine to form a picture which is unique for its grandeur in the annals of surgery.”

Next to McDowell we come to the name of Dr. Washington L. Atlee, of Pennsylvania, who may be styled the popularizer of ovariectomy. No American surgeon ever did as much to obtain proper recognition for any operation in the field of gynæcic surgery as did Dr. Atlee for the operation of ovariectomy. In the year 1855 he published an account of his first thirty cases, of which thirteen died and seventeen recovered. Such a number of recoveries from a disease unanimously regarded as necessarily fatal by the profession, immediately obtained the acceptance of the operation as a justifiable means of saving life.

In the year 1845, in a little country town in Alabama, J. Marion Sims, justly called the Father of American gynecology, accidentally discovered how the vaginal walls and the neck of the uterus might be exposed and explored by retraction of the perineum, and invented his famous duckbilled speculum, thereby rendering possible feats in gynæcic surgery never before contemplated.

It has been appropriately said of the discovery of Sims' speculum that “it has been to diseases of the womb what the printing press is to civilization; what the compass is to the mariner; what steam is to navigation; what the telescope is to astronomy; and grander than the telescope, because it was the work of one man.”

In the same year in his endeavors to cure a case or rather a series of cases of vesico-vaginal fistula, upon one of which he operated some thirty times, he invented, to meet the failure to secure good union of the freshened surfaces with silk, the metallic silver suture, and the method of fastening it in position by means of a perforated shot. The patience and pluck of this wonderful genius—amidst the most adverse and disheartening surroundings find possibly no equal in the history of American surgery. To him also the profession owes the establishment of the Woman's Hospital of the State of New York, an institution that has exerted a greater and more beneficent influence upon the evolution of the art than any other in the land.

Credit must also be given to Dr. E. R. Peaslee, the pioneer of abdominal drainage, whose useful discovery was announced in 1854.

In 1862 Dr. J. Marion Sims was succeeded in the management of the New York Woman's Hospital by his former associate and assistant, Dr. Thomas Addis Emmet, whose name is inseparably associated with the important discovery of the operation for the restoration of the lacerated cervix uteri, described by him in 1869 and 1874; and who has also devised one of the most useful of all the operations for the restoration of the lacerated perineum.

In 1865 Dr. Robert Battey “conceived the idea of producing an artificial menopause for the remedy of disease.” On August 17, 1872, he did the first operation, an account of which was published in the *Atlanta Medical and Surgical Journal* in September 1872. Almost at the same time Tait, of England,

and Hegar, of Germany, working independently of each other, performed the same operation; but the credit of its inception and its first performance, by the consensus of medical opinion, undoubtedly belongs to Dr. Battey. Credit must also be given to Dr. D. Hayes Agnew for his researches relative to the restoration of the perineal body given to the profession in 1873. In conclusion, the papers read and the discussion of them before the Philadelphia Obstetrical Society, the American Gynæcological Society and the many other similar associations, have been as powerful factors as any in establishing the practice of gynæcic surgery in the United States, as we know it to-day. An active army of brilliant operators and teachers are to-day following in the footsteps of their predecessors, and making for this special branch of surgery a name and prestige to which all American surgeons can point with national pride.

CHARLES MEIGS WILSON.

Annotations.

DR. H. W. LOEB has been elected to the Chair of Diseases of the Nose and Throat by the Marion Sims Medical College. We congratulate the college on its acquisition.

THE sulphur waters of Richfield Springs, New York, are now to be more fully utilized than ever in the treatment of disease. A new bathing establishment has been erected, containing baths of every description. Dr. Charles C. Ransom, of New York City, is the physician-in-charge. The establishment will be opened on June 20th. Physicians who desire full information concerning the Springs should communicate with Dr. Ransom, or Mr. Thos. R. Proctor, the proprietor, at the Springs.

DIPHTHERIA.

MILWAUKEE is waking up to the necessity of taking steps to stop the spread of scarlatina and diphtheria, which threaten to become epidemic. The great obstacle in the way of the health authorities is the ignorance of the people. On March 2, Commissioner Wingate issued a circular addressed to ministers. The commissioner orders that no funerals shall be held in any church or other place of public assembly, nor in any infected house, in presence of the body, in cases of small-pox, scarlet fever or diphtheria. The order is not intended to prohibit clergymen from holding a brief service in the infected houses in the presence only of those who have already been exposed by living in the house, provided no others are admitted.

The monthly bulletin of the New York State Board of Health for January of the present year reports diphtheria in fifty-four different localities in that State. The total number of deaths from it was 489. Among the causes of death this is the eighth in frequency; but the rank is really higher, as of the seven causes given as occasioning a greater mortality, five are groups of diseases, such as "acute respiratory diseases," etc. The only single affections outranking it are "consumption" and "old age."

LEPROSY IN INDIA.

AT last the Indian Government appears to have awakened to a sense of its responsibility in the matter of leprosy; as will be seen by the following extract from the *Indian Medical Gazette*:

In laying down rules for the guidance of the commissioners sent to India, the Committee of the National Leprosy Fund state that if it is thought well to leave one or more of their number to engage in bacteriological investigation at some central position where especial facilities are afforded, such a plan will have the approval of the committee. The commissioners are also asked to take cognizance of the fact that it is the avowed desire of the Indian Government to deal by legislation with the leper question in India, and that such legislation has been temporarily postponed in consequence of the appointment of this commission, and shall accordingly in their final report state clearly the conclusions they have arrived at, and the ground for those conclusions, concerning the desirability or otherwise; firstly of encouraging the voluntary partial withdrawal of lepers from among the non-leprous population; secondly, of enforcing the complete isolation of all lepers; and, thirdly, of enforcing the isolation of certain lepers. The commissioners in their final report shall also describe minutely what they believe to be the best plans for ensuring the efficient carrying out in practice of their recommendations relating to the treatment of lepers.

The Indian Government has done much to justify the British rule in that country, by the attention paid to the cultivation of cinchona. Three great pestilential diseases, however, flourish in Hindostan, and from this secure habitat threaten the whole world. Lepers swarm in every corner of the country, by hundreds of thousands. Scarcely any attempt is made at segregation, or the prevention of leper marriages. Cholera has its lair in the Ganges Valley, and the great Hindoo and Mahometan pilgrimages afford the ideal means of fostering the disease and diffusing it throughout Asia. The Plague is rarely mentioned now-a-days, and it has not for many years occasioned much uneasiness in Europe. But this, the most terrible pestilence known to human history, exists in its most virulent form in British India, and may one day break out and repeat the ravages so graphically described by Defoe.

Letters to the Editor.

PRIORITY IN OPERATION ON UTERINE FIBROIDS.

IN your issue of 22d, just at hand, I notice an excellent paper on The Treatment of Fibroid Tumors of the Uterus, by Dr. G. H. Rohé, of Baltimore. In this article I find Drs. Hegar, of Freiburg, and Tait, of Birmingham, are credited with priority as to the operation, whereby I am attempted to be defrauded of my just merit in this respect, as may be proved by reference to the ever-lamented Marion Sims' paper upon the subject, published about 1878; also, by reference to Goodell's Lessons in Gynæcology, and also to papers by Dr. J. G. Engleman, of St. Louis, and others. I operated, and the report of the case was published six months before Hegar operated. This claim has been allowed without contradiction for years, except by Mr. Tait, who tried it once, in a letter to the *Weekly News*, of Philadelphia, and was replied to by me in a way that has deterred him from repeating the attempt since. I have been in poor health for many years, and therefore not much before the professional public, but find it hard to have to defend my just claims by the unfair action of others. Trusting you will investigate this matter and deal fairly by me, I remain,

E. H. TRENHOLME, M.D.

MONTREAL, CANADA.

[There are only two men in the medical profession who are capable of doing anything: Tait and Koch. But we are quite sure that Dr. Rohé would not knowingly overlook the claims of a fellow-physician.]

IDIOSYNCRASY TOWARDS FRUIT.

A REMARKABLE case of aversion to fruit of all kinds occurs in the instance of Miss Heding Schultze, of Chicago. She is now twenty years old with no observable peculiarity of dentition or deviation from the normal in development. In fact, her health is very good, and she is thoroughly well nourished, with ruddy German complexion.

When a child of three or four years old, it was noticed that when the fruit was blown from the trees, in her parents' garden near Berlin, that the sight and odor of apples, pears, peaches, etc., made her sick. Every effort was made to overcome this disposition, but to this day she cannot eat any kind of fruit, however disguised. Sweets of all sorts she does not relish. She cannot eat pastry, and her diet is confined to a few vegetables and meats. If similar cases are known to other physicians, it would be of scientific interest to communicate them to your journal.

S. V. CLEVENGER, M.D.

CHICAGO, ILL.

THE QUESTION OF PATENTS.

IT would ill become me, in face of so courteous a dissent as that of Dr. Manly F. Gates, of the Navy, from the opinion I expressed, incidentally to a late article of mine on the Prostatic Electrolizer, to refrain from joining issue with him in the open court of medical journalism to which his letter to your journal invites me.

Dr. Gates thinks that it is best for the welfare of the medical profession that its code should proscribe patents to medical men. I said, in the article referred to, that I did not so think, and casually there gave reasons—which I will now state more fully—for the faith that is in me.

First of all it may be said that, in the present era, no difference is recognized between the rightfulness of remuneration for labor, as such, whether mental or physical. Putting the idea of work, as implying consciousness of exertion, out of question, the meritoriousness of *production*, and the righteousness of *due recompense*, in the sense that "the laborer is worthy of his hire," are recognized more fully now than at any preceding period in the world's history. By what twist of logic, then, can it be contended that a physician, because he happens to be a producer in the line in which his life-thought has led him, should be shut out from the recompense that other men receive for production in the line in which their special life-thought may have happened to lead them? Does not the priest live by the altar, and as so authorized to do? In the very same issue of THE TIMES AND REGISTER in which the letter of Dr. Gates appears, do we not see a stricture quoted from a speech of a member of the Chicago Academy of Medicine, at its late meeting, in which stricture is ascribed to scientific men less weight in every community than they should possess, because they are not in touch with the public in the management of business affairs; because—to elucidate what was meant—they do not generally know where sentiment ends and business begins? Have all the sentiment that you can bear with you through life, gentlemen; all the honor that you please for the weal of yourself and

your profession; but, after all, if you cannot justly draw the line of demarcation between these and the bread-winning of life—the business which no profession can escape—a most unhappy mingling of them is made, to the detriment of both.

The all-encircling and devouring dragon of society is cant, and many most innocently nurture it as the true guardian of honor. To say that we physicians, among the rest of human beings, are not, in a measure, under its spell, would be to rule ourselves out from partaking of one of the frailties of human nature. The truth in action, discarding the profession of truth, without feeling or conviction of it, would make every human being rise to a higher plane of moral existence. But we inherit, as we inherit much else, from our ancestors the habit of glossing over the exact significance of things, and exhibiting for their substance some shadowy presentment of their form. No more prolific source of evil exists than is to be found in the meshes of much ancestral custom, based on a condition of things long passed away. Yet, under these trammels we strive often to act, or at least to seem to act, spreading ever wider the bounds of trivial hypocrisies. Well known is the law of human action in one respect, that if men be curbed along lines of formal obligation, without real principle back of it, they evade restriction while professing conformity. He, therefore, who imposes unnecessary restraint upon his brethren, leads them into temptation.

It sounds very grand to speak of ourselves, in the connection which we are discussing, as above the gains that come by trade. But think for a moment, and say if we do scorn them in fact. All the good things of the world that reach us are derived from the earth or from trade. What then is the essential difference between being remunerated for one's professional labor directly or indirectly by trade? Will any dissentient inform me why, if the brain-product of a physician leads to the gain of a tradesman, he should not share in the store which he has increased. The difference in principle between the physician's receiving directly or indirectly the fruit of his labor is inappreciable; the question all reverts to the truism, that "the laborer is worthy of his hire"—the reward of his work.

How, it may justly be asked, if the physician is in honor bound to keep aloof from gain that may come from his invention, and is willing to deny himself any profit in it, is the tradesman to act? According to the notion of Dr. Gates, the high-minded physician, if acting according to the strictly logical requirement of the situation, would devote the unfortunate tradesman to the infernal gods. Is not every one aware that no one but the inventor of an article can, without perjury, take out a patent for it. Suppose, then, that a patent be not taken out for a certain article, what man will be found among tradesmen to spend his time and money to place the article before the public, if in so doing he is acting for the benefit of his competitors, while they are only at the slight expense of copying what he contributes to them almost as a free gift. Do not go to the expense of advertising, perhaps some one will say, and then if the thing be good, the world will come to know it in good time. Why, advertising is the breath of business life in modern times, and he who could thus speak of it can little realize that time is a most important element in the interest of suffering humanity, and that the highest philanthropy coincides with the quickest and widest dissemination of knowledge of the good.

One, at any rate, as the world is constituted, does not find manufacturers so made as to be willing to work as philanthropists, however much they may so be in their private capacities. If the world were so constituted, manufacture would come to an end. Only in a sphere where prostatic electrolyzing has ceased forevermore can such spirits be found. In the case of the very instrument which our original article described, in which I have not a particle of interest except as a physician, it was at first purposed not to patent it. The consequence was that it was at once promptly declined by manufacturers. It was then patented, and put in the hands of a prominent manufacturer, who is spending hundreds of dollars in bringing it into public notice, for which he is already receiving the reward without which he would not have stirred a step in that direction, and, consequently, many sufferers would not have been relieved. How far advanced for the cause of humanity, in comparison with this result, would have been the introduction of the instrument through the ancient processes which know not of patents?

The fact is, in fine, to any one who believes in the law of evolution, that we are living in an age in which some old habits no longer fit the freedom of our expanded limbs and forms. I trust that I shall never be found more backward than any of my professional brethren in attempting to uphold by word and deed the cause of true ethics, but I cannot, in the face of facts that stare me in the face, regarding the constitution of our present active world, and its methods of working to advantage for promoting the well-being of our species, I cannot, I would say, but think that we have outgrown the ancient formula indicting patents to medical men. In so contending I deem that I am assisting to remove a stumbling-block from the path of my brethren, and speak, in the largest sense, in the cause of common-sense, justice, and humanity.

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Book Notices.

PRINCIPLES OF SURGERY. By N. SENN, M.D. Illustrated with one hundred and nine wood engravings. Philadelphia and London, F. A. Davis, publisher, 1890. Cloth, 8 vo., pp. 611. Price, \$4.50.

Professor Senn has attempted the task of writing a text-book on surgery that will contain the fundamental principles of surgery, as well as the recent great discoveries in pathology, and yet be comprised in 600 pages. He writes from the standpoint of the teacher, who has gauged the capacity of his pupil, and is fully conscious of the herculean task before him.

Dr. Senn says very justly that the student who masters the principles will have no difficulty in putting his knowledge to practice; while the one who burdens his memory with trifling details will never be prompt in emergencies. The subject of tumors is left for a subsequent volume. While this book is written as a text-book for students, there can be few practitioners who would not find it exceedingly instructive and quite as interesting. It is worth one's while to read it, to realize how complete has been the revolution in surgical pathology effected by the microbe. The illustrations are well chosen and sufficiently numerous to elucidate the text. The typography and proving are unexceptionable. We commend the book to our readers as an admirable exposition of the principles upon which modern surgery rests.

Pamphlets.

A Farther Study of Anodal Diffusion as a Therapeutic Agent. Reprinted from the Medical Record, January 31, 1891. And a Second Note upon Homonymous Hemipic Hallucinations. Reprinted from the *New York Medical Journal*. By Frederick Peterson, M.D.

Annual Report of the Health Department of the City of Baltimore for 1890. Dr. Rohé's report contains much interesting matter. The total number of deaths in Baltimore, in 1890, were 10,198, an annual rate of 22.41 per 1,000. The principal causes of death were: Consumption, 1,249; pneumonia, 981; cholera infantum, 507; heart disease, 462; old age, 350; convulsions, 311; marasmus, 309; cancer, 276; diphtheria, 274; typhoid fever, 247; measles, 248; bronchitis, 332; Bright's disease, 289.

The Medical Digest.

FOR GONORRHOEA:—

R.—Ol. santali..... 3j.
Ovi vitelli, q. s.

Mix well and add:

Sp. ætheris nitrosi..... 3ij.
Syr. flor. aurant..... 3iv.
Aquæ cinnam ad 3vj.

M.—S. Tablespoonful every three or four hours.

R.—Ol. santali..... 3ss–3j.
Liq. potassæ..... 3ij–3iv.
Syr. acaciæ..... 3j.
Aquæ fœniculi..... 3iij.

M.—S. A teaspoonful well diluted, two or three hours after eating.

When there is much irritability of the bladder, or the ardor urinæ is extreme, I have often found the following gives prompt relief:

R.—Acid. benzoici,
Sodæ biboras..... āā 3ij.
Elix. simpl..... 3vj.

M.—S. A tablespoonful in water every three or four hours.

—Pooley, *Toledo Med. Compend.*

FOR SCABIES:—

R.—Acid. naphthoeici,
Cretæ albæ,
Sapon. virid āā gr. x.
Axung..... gr. c.

Three or four inunctions only are necessary. No favorable results were obtained in vegetable parasitic diseases, as no reaction of the skin is obtained from it. In prurigo, a ten per cent. ointment for adults, and a five per cent. ointment for children gave good results.—*Boston Med. and Sur. Jour.*

SPINAL CURVATURE.—The treatment, in a general way, has for its object:

1. By manipulation, massage and traction, the limbering of the spine by stretching the ligaments and muscles on the concave side.

2. The development of the weaker muscles, and in fact all the muscles, while the spine is in the straightest possible position. This treatment seems to be rational, has proven to be so in a great many cases, is more easily recommended than carried out, requires persistent and long continued effort, during which, in many cases, the patient or physician, or both, become discouraged. While, in others, persistent treatment proves to be satisfactory, curing, or at least preventing, any further deformity.

—Smith, *N. E. Med. Monthly.*

SULPHO-CALCINE IN DIPHTHERIA.—Kennedy (*Med. Bulletin*) describes two cases of diphtheria that recovered under the local use of sulpho-calcine. His report concludes as follows:

"I have every reason to consider sulpho-calcine a veritable specific and the only preparation that deserves the name. Its composition of calcii oxydum purum, flores sulphuris loti, benzo-boracic acid, ol. eucalyptus globulus, ol. gaultheria, and ext. pancreaticum shows at a glance that it contains ingredients which in the past have been of the most material benefit in the treatment of diphtheria, and in my opinion there is nothing which, on a fair trial, will give such perfect results.

"In a case of chronic catarrh of twenty years' standing I used sulpho-calcine, and after three weeks' trial the patient was able to smell cooking—something he had not done for years. At this time he continues to improve."

APPENDICITIS.—While it is generally conceded that no fixed rules can be formulated that will be applicable to all cases, but that each must be judged to a certain extent upon its own merits, I would venture, in conclusion, to present the subject for your consideration in the following summary:

1. That the majority of those cases of appendicitis characterized by mild symptoms require no surgical interference unless such symptoms increase, or persist unabated, after the third or four day.

2. That the presence of slight induration, accompanied with moderate pain and tenderness and but little constitutional disturbance, does not necessarily indicate operation. Where, however, such induration continues to increase beyond three or four days, or there is an increase in the general symptoms by that time, operation will promise more than an expectant treatment.

3. That cases presenting, either from the first, or at any time in their course, marked constitutional disturbance, notably chills, a continued high temperature or a variable temperature, rapid pulse, vomiting and increasing tympanites, with or without the presence of tumor, demand operation as early as possible.—Rand, *Brooklyn Med. Jour.*

TREATMENT OF ABDOMINAL TUBERCULOSIS.—The treatment of abdominal tuberculosis is altogether subordinate to that of the associated pulmonary or general tuberculosis.

In general terms (bearing in mind the channels of infection), the treatment is preventive, palliative and supporting. As to curative measures, no claim, I believe, has been made, except by those optimists in therapeutics, the English. At Guy's Hospital, for many years, applications of mercurials to the abdomen have been used; and, according to Fagge, have been curative more than once. Koch's lymph, apparently, does not find in abdominal tuberculosis its best field for operation. Its action on tuberculous tissue being essentially a necrosis, we would fear the result in cases of intestinal ulceration; for, by the thinning of the indurated base, perforation might ensue. In a case in Berlin, under Leyden's care, this has, indeed, occurred.

When we come to the surgical treatment of these cases, we reach a broader field, and one that, of late years, has excited wide-spread interest and discussion. So far as I can find, not much has been attempted in the removal of the enlarged glands of tabes. Usually the glands involved are so many in number that the effort at their excision would be hopeless. Yet it is

conceivable that laparotomy and removal of a large gland or mass for the relief of severe pressure symptoms might be allowable. It is, however, in tuberculous peritonitis that laparotomy has taken its place as an established procedure.

It is difficult, from the theoretical point of view, to see how laparotomy can be of any avail in relieving or improving abdominal conditions, when the peritoneum is studded with millions of tubercles; yet this is the firm conviction, from operative experience, of many eminent men.

Gairdner, of Glasgow, says: "In tabes mesenterica, simple paracentesis, and free incision and irrigation of the peritoneal cavity, are justifiable and remedial measures."

Wm. Osler says: "Statistical evidence shows laparotomy to be in many cases a palliative, and, in a certain number, a curative measure."

Deschamps, of Paris, regards the operation with favor, as do Jos. Price, of Philadelphia, Van de Warcker, of New York, and many others.

F. Spaeth, of Hamburg, who has had much experience in this operation, comes to these conclusions:

1. In primary tuberculosis of the peritoneum, without implication of other organs, laparotomy may act as a curative agent, and is to be recommended.

2. In tuberculosis of the peritoneum, where the female genitals are involved, the operation is not satisfactory.

3. In tuberculosis of the peritoneum, due to a tuberculous enteritis, the operation is only palliative.

4. In general tuberculosis, unaccompanied by peritoneal involvement, an early radical operation is to be urged.

By many of those quoted above, the beneficial effect of laparotomy upon the general condition of the patient and upon concomitant pulmonary lesions (aside from all local results), has been commented upon as something startling.

In ulceration of the appendix, cæcum, or other parts of the intestines, with perforation, or in tubercular perityphlitis, with rupture into the peritoneal cavity, the necessity for laparotomy is urgent.

—Van Zant, *Lancet Clinic.*

THE ANÆSTHETIC ACTION OF NITROGEN ALONE OR WITH A SMALL PROPORTION OF OXYGEN.—The phenomena which result from the inhalation of nitrous oxide as an anæsthetic are strictly analogous with those observed in the early stages of asphyxia.

Some writers maintain that the anæsthetic action of nitrous oxide is due to its preventing access of free oxygen to the system, others believe that it has a specific anæsthetic action. It occurred to me that light might be thrown upon this subject by the administration of pure nitrogen. Accordingly I obtained from the Scotch and Irish Oxygen Company, of Glasgow, a cylinder containing 100 cubic feet of compressed nitrogen, in which the proportion of oxygen was only 0.5 per. cent. by vol., whilst that of the CO₂ present was 0.3. As a preliminary trial, Mr. F. W. Braine was good enough to administer this gas in five instances to members of the staff of King's College, who volunteered to inhale it.

The result was, in each case, the production of complete anæsthesia and of general phenomena precisely similar to those observed from the inhalation of nitrous oxide. Encouraged by these results, Mr. Braine felt justified in administering the gas to patients at the dental hospital. Nine patients took the gas. In every case, the result was the production of complete anæsthesia, with general phenomena pre-

cisely similar to those observed during nitrous oxide inhalation. The pulse was first full and throbbing, then feeble; in the advanced stage respiration was deep and rapid, with lividity of the surface, dilated pupils, and more or less jactitation of the limbs; the only difference, in the opinion of some of those present, being that the anæsthesia was less rapidly produced, and somewhat less durable than that from nitrous oxide, though in each case the tooth was extracted without pain.

On a subsequent occasion, the same gas was administered by Dr. Frederic Hewitt at the Dental Hospital. Nine patients took the gas. The maximum period required to produce anæsthesia was 70 seconds, the minimum 50 seconds, and the mean time 58.3 seconds.

In one case two teeth were extracted without pain; in one only was pain experienced, and in that case the tooth having been broken and not extracted, the patient said she felt a "smashing up."

I subsequently obtained from the same company a cylinder containing compressed nitrogen with 3 per cent. of oxygen, and a second cylinder containing nitrogen with 5 per cent. of oxygen. These gases were also administered by Dr. Hewitt to patients at the Dental Hospital, with the following results:

Five patients took the 3 per cent. gas. Anæsthesia was complete in 75 seconds (max.) and in 60 seconds (min.), the average time required being 67.5 seconds. In each case the tooth was extracted without pain, the duration of anæsthesia being somewhat longer than with pure nitrogen. In each case there was lividity, dilatation of pupils, and more or less jactitation. Four patients took the nitrogen containing 5 per cent. of oxygen. With this mixture the time required for the production of anæsthesia ranged from 75 to 95 seconds, the average time being 87.5 seconds. In each case there was complete anæsthesia, during which one patient had three molars extracted. Although she said she felt the last two, the sensation appeared to be that of a pull and not of acute pain. In most of these four cases there was slight lividity before the removal of the face piece. In only one case was there slight jactitation of the limbs; the other three patients were perfectly quiescent.—*Brit. Med. Jour.*

ENLARGED SPLEEN WITH LEUCOCYTHEMIA.—Barrs reports a case which recovered under the persistent use of iron and arsenic, the latter gradually increased to 9 drops of the solution of arsenic chloride.

RUPTURE OF COSTAL CARTILAGE.—This gentleman comes to us with the following history: Eight years ago he received an injury on the left side in the region of the ninth costal cartilage. This has troubled him ever since, and upon examination we find the ninth costal cartilage separated from the slightest exertion, and even in full respiration the end of the rib works very perceptibly. We will cut down upon this and bring the cartilages in apposition with a silver wire suture. Before tightening the suture we will scrape the approximating surfaces in order that we may get good union. It is needless to say this will be dressed antiseptically, as that is understood in all operations.

—Heddens, *St. Jo. Med. Herald.*

CREOLIN IRRIGATIONS IN COMPOUND FRACTURES.—Three cases of compound fracture were kept side by side in the female ward of the hospital and treated by the same method, viz.: irrigation by creoline

lotion (1 in 1,000). The injured parts were put in suitable splints. In case No. 1 the irrigation was kept up for nearly ten days, when the wound healed and the gangrene stopped, with slight sloughing of the edges of the wound. In case No. 2 there was a collection of pus below the bone which had to be evacuated and drained. A thin film of bone over the exposed part of the tibia separated by the natural method, and then granulations covered it beautifully. In this case the irrigation was kept up for a fortnight. In case No. 3 there was no complication, and the union was perfect.—Mittra, *Indian Med. Gazette.*

IMPROVISED STERILIZED DRESSINGS.—In the every-day treatment of wounds it is my custom often to improvise my dressings. The towels with which the wound is sponged are heated and sterilized in the kitchen oven. The gauze is made from an old sheet or shirt, clean and white, which almost any housewife can furnish. It is roasted to a light brown on top of a hot stove and applied hot to the wound. It is a splendid absorber of discharges. When oakum is not at hand to treat the same way, I tear the washed sheet into narrow strips and pieces and put a thick layer of it over the gauze. Then a layer of cotton batting roasted in the same way is applied over the strips of sheet and held in place by a roller bandage. When I can't get the cotton I use more of the sheet until the wound is thoroughly protected from the air.

The slightest trace of fluid soaking through the dressing from the wound is the signal for a change of dressing which is repeated after the original method.

—Wyman, *Jour. Railway Surg.*

HOT AIR INHALATIONS IN PULMONARY PHTHISIS.—The experience I have had with this method of treatment disposes me to recommend its use only in the early stages of pulmonary phthisis—cases where the pulmonary tuberculization is not far advanced, and the lung substance only slightly involved, and not at all broken down; where, in short, the bacilli are most recently deposited, and, accordingly, most superficial. Indeed, where there is a strong suspicion of tubercle setting in, although no positive physical signs of tubercular deposit may be capable of detection; where, for example, there is hæmoptysis which we cannot refer to any other source—as from the nose, mouth, gums, throat, larynx, trachea, stomach, or from structural alterations in the terminal pulmonary blood-vessels of elderly people with an arthritic diathesis (Clark); or during severe attacks of acute bronchial catarrh with violent coughing, or after severe bodily exertion or the inhalation of highly irritant gases—then, all these probable causes being cautiously eliminated, it would be advisable to adopt its use.

That a bronchial catarrh, particularly if confined to the apex of the lung, or spreading there and inducing a catarrhal pneumonia—a pneumonia localized in the upper lobe, or a catarrhal pneumonia in the lower lobe—may often be followed by tubercle, we have, unfortunately, too many examples. Now it so happens that this hot air method provides us with an admirable means of treating many obstinate forms of bronchitis; and I have frequently used it in such cases with the most marked benefit. No doubt many of the milder cases of pulmonary phthisis may eventually recover of themselves, particularly if the conditions are at all favorable; but the course is necessarily very slow, and liable to many accidents.

—Charles, *The Lancet.*

THE TREATMENT OF TETANUS BY INJECTION.—It will be remembered that Drs. Behring and Kata-sato, a Japanese physician in Berlin, reported, some time ago, that on the injection of the serum of blood of animals rendered proof against tetanus into other animals suffering from tetanus, they recovered. No experiments in this direction had been made on the human subject. On the 4th inst., however, the report of such a case was presented to the Medical Society by Dr. Baginsky. A child suffering from tetanus neonatorum was admitted into the Kaiser Friedrich Hospital, and it was determined that the experiment should be made. About a 0.1 grm. of of blood serum, taken from an animal rendered proof against the disease, was accordingly injected, where-upon the temperature rose to 39° C. On the following day the injection was repeated, when the temperature rose to 41° C. (105.8° F.) On the two following days the injections were repeated, the temperature rising each time to 41° C. A transient or apparent improvement took place, but the tetanic spasms soon returned in undiminished force, and the child died. The autopsy revealed marked hyperæmia of the brain and other organs, and some patches of broncho-pneumonia, but nothing else. A report of the microscopic revelations will be published later. It was proved, in this case, that the disease was due to the tetanus bacillus by control experiments on another animal. Dr. Baginsky is inclined to the opinion that the failure in his case was due to over much caution, and that a better result might have been obtained by pushing the treatment a little more.—*Med. Press.*

MALIGNANT GROWTHS SUCCESSFULLY TREATED BY ANILINE TRICHLORATE.—At the "Gesellschaft der Aerzts," Prof. Mosetig Moorhof read a paper on ten years' experiments in malignant inoperative cases, during which time he had used nitrate of silver, sodium chloride injections, hydrogen peroxide, etc., without any appreciable checking of neoplastic growth. In the aniline coloring series he was successful in checking the progress, and in some cases is convinced that they disappeared under the influence of the trichlorate of aniline as well as the methyl-violet. According to his own description, it was in the year 1883 that the idea occurred to him that the proliferation of the pathogenic cell element and rapid growth of the neoplasm might be checked, if not destroyed, by some external means that could be applied to act on the nucleus of the cell element, and thus destroy germination.

In one case of ulcerating round-celled sarcoma, not suitable for operation, he employed the trichlorate of aniline. Injections of a 1 per cent. watery solution were made, increasing the dose until he reached 1 drachm. Here the patient very nearly died. After eight weeks' treatment the patient left the hospital as cured. At first the discharge increased, carrying out colored disintegrated tissue. The same success ensued in three other cases. Since the introduction of methyl-violet or pyocyanin he had used it with equally good results. He employed solutions of 1 to 1,000, up to 1 to 300, and believed that more than 6 grammes of the latter can be safely given. If speedy results are desired, it should be used oftener than every second or third day. The speaker did not mention unsuccessful cases.—*Med. Press.*

THE TREATMENT OF PERITONITIS BY ESERIN AND PILOCARPIN.—By the use of eserine and pilocarpine we could secure intestinal peristalsis, watery stools, diaphoresis, diuretic and sedative action, with

free watery secretion; also the advantages of hypodermic administration and rapid, sure action of the remedy and the minimum of gastric irritation, and the advantage of a rapid reaction of the system from the effects of the remedy. While the important object is to secure drainage of ascitic accumulations into the intestinal canal, and to flush out the glandular tissues and free them of the infectious germs, to combat the inflammation and to diminish reflex excitation, it certainly is rational treatment. The remedy has been sufficiently satisfactory in the treatment of the lower animals to warrant a thorough trial in man.

If in the use of these remedies we can avoid the delay in the action of saline cathartics, it will certainly circumscribe the danger and hasten the cure, and at the same time secure a much more pleasant treatment for the patient.

Eserine does not produce such violent peristalsis as pilocarpine, and has a more sedative action.

Hoover, *Lancet-Clinic.*

PHLORIDZIN DIABETES.—Moritz and Prausnitz (*Zeits. f. Biol.*) have shown in v. Voit's laboratory the action of this remarkable body in detail. Phloridzin is a glucoside obtained from the roots of the apple tree and some other trees, and v. Mering found that it caused diabetes. The special interest which attaches to this form of glycosuria is that it can be produced in animals whose livers are free from glycogen, and this suggests, therefore, that the source of the sugar in the urine in this case cannot be the carbohydrates, but that one must look to the proteids as its source. The animals—strictly dieted—received 2.5 to 3 grammes (38 to 45 grains) of phloridzin daily, and none was found in the faeces. The glycosuria lasted for three days. Phloretin—not a glucoside—also causes glycosuria, but the other decomposition products, phloretinic acid and phloroglucin, do not do so. Phloridzin glycosuria seems to be analogous to diabetes mellitus as it occurs in man, for it takes place on an albuminous or a carbohydrate diet, and also during starvation, and even on a purely fatty diet, and in these cases the urine may contain 6 to 13.5 per cent. of sugar; and it is somewhat remarkable that relatively more sugar appears in the urine on a flesh diet than on a diet of carbohydrates. During hunger and on a fatty diet the excretion of sugar is very considerable, and the relative loss of sugar in both cases much greater than on a carbohydrate or flesh diet.—*Brit. Med. Jour.*

HÆMATOZOA OF MALARIA.—Laveran (*Journal des Connaissances Médicales*) gives a very clear account of his methods of examination of the blood in cases of malaria. He points out that such examination is exceedingly necessary in hot countries, where typhoid fever or sunstroke may be mistaken for malaria, or *vice versa*. An examination of the blood always puts the matter beyond doubt. He recommends that the examination should be made just at the beginning of a febrile attack, and before quinine has been administered, as during the period of apyrexia the organisms are seldom found in the peripheral circulation, but appear to be collected in the internal organs, and especially in the spleen. For the examination of the fresh blood, the skin should be cleansed with soap and water, rinsed with alcohol and carefully dried, then, everything being ready, the finger is pricked with a pin that has been heated to redness, and allowed to cool, the little round globule of blood that appears is touched with a clean slide; a cover glass

is lowered down on to the blood, which is pressed out until the film assumes a transparent yellow color ; the film is then not too thick, and should be examined at once. The clot that is formed at the margin prevents the drying of the film ; but, in order to keep the film thin, it is better to wipe away the blood that is pressed from under the cover glass, and then to surround with paraffin. Daylight and no sub-stage condenser should be used for examination, or the organisms are rendered too transparent. The movements of the flagella and the amœboid movements can all be made out. If the organisms are pigmented they are readily enough seen, but a most careful search may have to be made for those non-pigmented organisms that sometimes adhere to the red blood corpuscles. If the specimen is to be preserved for further examination the film should be prepared by compressing between two cover glasses, which are carefully separated, allowed to dry, and passed two or three times through a clear flame ; each film is mounted unstained and dry, with a paraffin rim to keep out the air, and to retain the cover glasses in position. When it is wished to stain the organisms in order to bring them into special prominence, the films, after being heated on the cover glass, are put into a mixture of alcohol and ether ; they are then allowed to dry, after which they are stained with a concentrated aqueous solution of methylene blue for thirty seconds ; they are then rinsed in water and mounted dry, the cover glass being surrounded with paraffin. The leucocytes are colored deep blue, the free spherical organisms and those adhering to the red blood corpuscles pale blue, whilst other forms are scarcely tinged. A contrast stain may be obtained by using eosin. With these stained preparations artificial light may of course be used. In all cases where possible both methods of preparation should be resorted to, as each has its advantages.—*Brit. Med. Jour.*

BRIEFLETS.—

For Nasal Fissures and Excoriations :

R.—Iodol..... gr. xxv.
Acidi carbolici..... gr. iv.
Ol. rosæ..... ℥. v.
Lanolin..... 3iv.

M.—Apply locally.

—Bennett.

For Tobacco Heart. Use cactus Mexicana.—Gayle.

For Hysteria. Tartar emetic.—Simpson.

Dr. Monk proposes that the township trustees be required to pay doctors' bills for the poor.

Dr. Hubbard proposes to transfuse the blood of persons recovering from influenza into the veins of those who are just commencing with the disease.

For Constipation. The following pill :

Hydrastis..... ¼ grain.
Ext. cascariæ sag..... 1-5 "
Xanthoxyline..... 1-5 "
Aloin..... 1-10 "
Ext. belladonnæ..... 1-20 "
Podophyllin..... 1-10 "
Oil peppermint..... 1-30 drop.
Sul. strychnine..... 1-100 grain.

—Gregg.

For Hot Flashes. Fifteen drops of dilute sulphuric acid in water, thrice daily.—Johnson.

Dr. Ansbrooks has used cocaine very freely, and never saw any evidence of an aphrodisiac action.

Dr. Lindsey records the case of a woman who died of suppression of urine after child-birth. Two hours after death the body began to perspire with great freedom.

For Urticaria :

R.—Magnesiæ sulph..... 1 ounce.
Ferri sulph..... 1 drachm.
Acid. sulph., dil..... 2 drachms.
Tinct. gentian..... 1 ounce.
Aquæ..... q. s. ad 8 ounces.

M.—Sig. One tablespoonful in water every one or two hours. —Thornton.

For Chronic Chills :

R.—Nitric acid..... 1 drachm.
Sul. iron, C. P..... 1 " M.

After the iron is decomposed, add :

Water..... 4 ounces.
Strychnine sulph..... 1 grain.
Nitrate potash..... 1 drachm.
Quinine..... "
Tinct. ginger..... 2 drachms.
Alcohol..... q. s. ad 8 ounces.

M.—Sig. One teaspoonful to commence with, and gradually increase to two. Take before meals and dilute with water. —Collins.

For Morbid Blushing. Nitrite of amyl, ½ to 1 drop, thrice daily, in syrup and water.—Wells.
—Medical Brief.

NASO-PHARYNGEAL CATARRH is thus treated by Willis: First cleanse parts with peroxide of hydrogen, diluted sufficiently, and then apply the following with spray :

R.—Sodii boro-benzoat,
Fld. ext. hydrastis..... āā 3j.
Glycerini..... 3j.
Acidi carbolici..... ℥xx.
Aquæ camphoræ..... 3vj.
Aquæ..... 3vj.

M.—Sig. Use three times per day.

—Canada Lancet.

LYMPHADENITIS.—These are the principles that should govern the physician in treating chronic lymphadenitis in children. To impress more strongly upon your minds these principles and their importance in treating such cases, I shall formulate the following conclusions :

1. Intelligent treatment of this affection is based upon a correction of the general malnutrition.
2. Intelligent treatment is based upon an elimination of the cause of the trouble, which presents itself in the form of chronic inflammatory processes of the mucous membranes and the skin, and
3. In the application of remedies which should differ in different cases. In the initial stage of the affection frequent applications of the tincture of iodine, cold or heat will be indicated ; but generally when cheesy deposits have taken place all those local forms of medication are insufficient, and the treatment can be expressed by the simple word *evacuation*.
If you fulfil these principles you will cure your patient, and if you neglect them the case will proceed from bad to worse, or if nature finally accomplishes a cure, the patient will be left with irregular contracted scars which will prove a permanent and annoying deformity.—Gerster, *Int. Jour. Surgery*.

A RUSSIAN physician has proved, by direct experiment, that pepper and mustard given to patients with Bright's disease, increase the excretion of albumen in all forms of the disease.

LIMITATIONS OF SPINAL SURGERY.—*Conclusions:*

1. For spina bifida, excision of the sac, after the method of Mayo Robson, is to be advocated.

2. For spinal caries one should only operate where the sinus drainage is exhausting the patient. Then even the bodies of the vertebræ may be curetted, and the sinuses should be abbreviated. Tubercular sinuses should be cleaned up with peroxide of hydrogen and iodoform injections. On cold abscesses Brun's method should be tried.

3. In fracture paraplegia operation should be deferred until the bones have united and hemorrhage has been absorbed. A subjective sense of tingling and pain in the paralyzed and anæsthetic limbs is not an evidence of conduction to the cerebrum along the cord, but rather of irritation of the divided stump by the cicatrix, or by bone-spiculæ, and thence a delusive reference to the part supplied. The only satisfactory proof of total transverse lesion is based on observation of absence of tendon reflexes. Involuntary twitching and jumping is a reflected action having its nervous origin in the distal part of the divided cord. It may exist even years after the injury, and is not to be construed as favorable to ultimate recovery.

4. Little is to be hoped for from operation in cases of total transverse section. If there is pain in the hyperæsthetic zone, it will probably be relieved by breaking up intradural adhesions, and relieving the engorgement of the cicatrix. Nothing more can be expected. Paresis and limited anæsthesia of the lumbar root supplies call for operation, and this will probably be followed by recovery.

5. Cases of paraplegia and persistent acute pain, warranting a diagnosis of myelitis with local meningitis, should be given a chance of relief, such as that which followed White's operation described above.

6. Simplification of operative methods makes the surgery of the spine a comparatively simple affair.

7. Intradural division of the posterior roots of the brachial or sciatic plexuses for the relief of intractable neuralgias is an operation seemingly justified by the three reported cases. Further experience is needed to prove its title to a place in the list of justifiable operations.—Abbe, *Canada Pract.*

TREATMENT OF IRRITABLE BLADDER.—The best internal medication is iodide of potassium in from 10 to 30 grain doses every few hours with large quantities of hot, soft water. This often in the incipient stage will effect a cure in a few days and will give relief in a few minutes. The decoction of the triticum repens which has been so highly praised by some, I have been much disappointed in, as it has appeared to me to do nothing more than act as a diuretic. Tincture of belladonna in some cases is of benefit but cannot be relied upon. Keep the body warm; warm baths with shampooing is of great benefit. Some cases that in the early stages were particularly intractable have been cured by a few weeks' residence at Excelsior Springs, with a liberal use of those iron-manganese waters. Probably they change the nutritive processes that are always at fault, and at the same time wash out the bladder thoroughly by their diuretic action. Relapses are liable to occur, hence great care should be used both as to diet and hygiene and the first symptoms of a relapse promptly treated.—Halley, *K. C. Med. Record.*

A PUBLIC auction of Koch's lymph is pending at Minneapolis. Its former owner had no other personal property wherewith to satisfy a debt of \$400.

MORRIS (*Med. Mirror*) describes a case of unusual interest. The child, aged two and a half years, walked stiffly, easing the right leg, and then returned to creeping. The right gluteal fold was effaced; the right buttock broad. When he tried to rise the back muscles contracted rigidly. The diagnosis was incipient spondylitis and coxitis; but circumcision was advised to remove any possible reflex. The prepuce was long, firmly adherent to the glands, and retained a collection of hard smegma. The operation was performed, and, while waiting for a cuirass to be made, the child got entirely well.

PYREXIA.—In concluding this brief summary we offer the following propositions:

1. The temperature is not a reliable index of tissue change.

2. It is by no means a certain indication of the gravity of disease.

3. That in some degree at least pyrexia is to be considered as a conservative process not to be abolished.

4. That the mere control of the temperature by any method without attention to co-existing conditions, is not productive of good but often of evil.

5. That the use of the synthetic antipyretics should be limited to short periods and selected cases.

—Smart, *Cleveland Med. Gaz.*

PUERPERAL SEPSIS: SIX CASES.—In case No. 1, the determining cause was one of mind over physical condition, a determination on her part, if possible, not to live with her husband, treating him with the utmost contempt, careless of herself, so that the directions of her physician and the care of the nurse availed nothing. This was not due alone to the septic influence, because it was noticeable from my first visit. She died in six days.

In case No. 2, Mrs. A., it was complicated with a poorly nourished condition, small pelvic cavity and the brain symptoms overshadowing everything; but in another case of the same amount of lacerated tissue, when the healing process ceased, I would remove the stitches and apply pure carbolic acid to the raw surface of the wound, keeping the parts aseptic and giving tonics, hoping to antagonize the sepsis. Died on tenth day.

In cases Nos. 3, 4, 5, 6, their recovery I attribute to the prompt cleaning out of the cavity of the uterus, curetting and applying pure carbolic acid to the parts, and using intra-uterine douches followed by vaginal cleanliness and keeping the bowels opened. In every case that I used the curette I brought away large or small pieces of the placenta, often to my surprise, because I am very careful to examine the placenta for any missing portion, and in all my puerperal cases when there is the slightest rise of temperature, and if it is not controlled within twelve hours I do not hesitate to use the intra-uterine douche, then the curette followed by the douche again, then given tonic doses of iron, quinine and stimulants, with necessary anodynes, not forgetting that every absorbing surface of the uterus or vagina must be closed by the application of pure carbolic acid.

—Dannaker, *K. C. Med. Record.*

MABEL GODDARD has been studying the question of matrimony, and she has found that in no class of women workers are marriages as frequent as among trained nurses. Type-writers come next; while the school-ma'am brings up the rear of the procession.

Medical News and Miscellany.

ST. LOUIS men contract syphilis from sick horses.

THE California Fig Syrup Co. have enjoined several imitators of their valuable preparation.

BANANA FLOUR is one of the latest novelties in food products. It is wholesome and palatable.

BOOK NEWS, always interesting, quite excels itself in the March number. Call at Wanamaker's and get it.

THE editorial fraternity of St. Louis appears to be in some respects like the French government—change is the normal condition.

DR. S. W. INGRAHAM, of Chicago, died last Saturday, of pneumonia and overwork. He was formerly Professor of Throat and Lung Diseases in Bennett Medical College.

DR. WM. E. WIRT, late of the Hospital for Ruptured and Crippled, of New York City, has been elected to the chair of Orthopædic Surgery in the medical department of Wooster University.

A NEW hotel has been opened at Winslow Junction, in the Jersey pines. This pine region is attracting a good deal of attention recently, as a resort for phthisical patients, who do not care to go too far from their homes.

GOVERNOR WINANS, of Michigan, had his entire attention absorbed by a persistent hiccupping spell several days last week, but was finally relieved by nitrite of amyl. Some years ago the Governor had a similar attack that lasted three weeks.

DR. BRANSFORD LEWIS announces in the current issue of the *Weekly Medical Review* that he vacates the directorship of that journal in favor of Dr. G. W. Broom; who, we doubt not, will make a clean sweep, as the proverbial new broom is said to do.

THE red coloration of carbolic acid has been the subject of a very elaborate investigation by E. Fabini, the results of which are that the coloration is due to the action of hydrogen peroxide upon metal containing carbolic acid in presence of ammonia; H_2O_2 , metal and NH_3 , *must be present* to produce the color.

THE Mississippi Valley Medical Association will hold its Seventeenth Annual Session at St. Louis, Wednesday, Thursday, and Friday, October 14, 15, and 16, 1891. A large attendance, a valuable programme, and a good time are expected. The members of the medical profession are respectfully invited to attend.

BERTIN AND PICK, of Nantes, have improved on the canine-blood treatment of tuberculosis, by employing injections of dog serum. The cases treated "all show signs of unlooked-for and rapid improvement." The blood must be gathered in sterilized jars, of which the opening is closed by cotton. On the following day the serum can be drawn off in tubes holding about three cubic centimeters, with pointed ends that can be closed by being heated. After that there is nothing to be done but to inject the contents beneath the skin every two or three days, one or two cubic centimeters at a time, after taking the precautions that are customary for hypodermic injections.

DU CASTEL claims that in small-pox opium with ether has a favorable influence on the disease, and attenuates or checks the eruption. In hemorrhagic cases it is necessary to add alcohol and perchloride of iron. He recommends $1\frac{1}{2}$ to $2\frac{1}{4}$ grains of opium and 2 to 3 drachms of ether every twenty-four hours. Cinchona or iron is usually indicated in addition.

THE New Jersey Legislature has finally passed the bill repealing the charter of the Medical and Surgical College of New Jersey, and Gov. Abbett has affixed his signature. That this good result has been obtained is due largely to the efforts of the State Board of Medical Examiners, which has signalized the first year of its existence by ridding the State and the medical profession of this fraudulent diploma-mill.

Here is a startling item: "To remove blackness from the teeth. Take *muratic acid*, 1 oz.; water, 1 oz.; honey, 2 oz.; mix, apply with a tooth brush, and rub vigorously." This recipe was found in glancing through the pages of *The Housekeeper's Companion*, a Chicago production. It certainly would accomplish the desired object, but at what a price! Muriatic acid! Why not aqua regia?—*Dental Cosmos*.

A LAMENTABLE tragedy occurred in Wheeling last Saturday, when Dr. George Baird was shot and killed by Dr. George I. Garrison. Dr. Baird graduated at the University of Pennsylvania in 1852; Dr. Garrison at Jefferson in 1886. Both were prominent men in public and professional work. The quarrel is said to have originated in politics, Dr. Garrison having beaten Dr. Baird's son in the contest for Health Officer of Wheeling.

A ROCHESTER physician has sent five hundred dollars in small sums to about fifty citizens of Springfield, O., to pay for property he took and destroyed in his boyhood days, such as melons, chickens, etc. Of course, the recipients will go and do likewise.—*Ex.*

Now, that is just what we would like to do; and if all the people who have swindled us out of doctor bills for the last twenty years were to pay up, we'd send McCrum a check for his old gobbler.

SHAD.—A nice way to prepare them for supper is to spice them. Scale, clean and wash the shad with salted water, wipe dry and cut in twelve pieces, stick with whole cloves, lay with skin side up, sprinkle with salt and pepper, a few whole allspice and blades of mace, cover with vinegar, and bake all night in a closely covered earthen pan to destroy the bones. The heat of the oven will be sufficient if the fire is fixed as usual for the night. The shad is to be eaten cold.—*Table Talk*.

THE COMING MEETING AT WASHINGTON.—The meeting of the American Medical Association, which is to be held in Washington, in May of this year, will be one of the most important in the history of this organization for a number of years. The principal question which will come up for decision will be that of the removal of the Journal of the Association from Chicago to Washington. It will be a bitterly-fought battle, and we hope that right will prevail. The Journal, as long as it remains in Chicago, will never be the representative of the medical profession of the United States. We hope it will go to Washington, which is its natural home, and that the members will begin to prepare their papers for the coming meeting. Let us hope that in harmony, as well as from a scientific point of view, it will be the banner meeting of the Society of the century.

—*N. E. Med. Monthly*.

CAUSES OF DEATH.			CAUSES OF DEATH.		
	Adults.	Minors.		Adults.	Minors.
Abscess.....	1	1	Hemorrhage.....	3	1
Alcoholism.....	4		Homicide.....	1	2
Aneurism of the Aorta.....	1		Influenza.....	1	2
Asb. ma.....	1		Inflammation brain.....	1	12
Asphyxia.....		2	" brouchl.....	6	9
Apoplexy.....	8		" bladder.....	1	
Bright's disease.....	12		" kidneys.....	3	
Burns and scalds.....		2	" larynx.....	1	1
Cancer.....	16		" knee joint.....	16	16
Casualties.....	4	2	" lungs.....	2	
Cerebro-spinal meningitis.....		1	" pericardium.....	5	
Congestion of the brain.....	4		" peritoneum.....	5	
" lungs.....		1	" s. & bowels.....	5	6
Caries of the spine.....		1	" uterus.....	1	
Carbuncle.....	1		Insanity.....	1	
Cirrhosis of the liver.....	1		Inanition.....	1	10
Consumption of the lungs.....	48	4	Jaundice.....	1	1
Collapse of the lungs.....			Malformation.....	1	
Convulsions.....		14	Marasmus.....	9	
" puerperal.....	1		Measles.....	1	1
Croup.....		12	Neuralgia of the heart.....	1	
Cyanosis.....		3	Old age.....	8	
Debility.....	5	3	Obstruction of the bowels.....	1	
Diarrhœa.....	2	3	Paralysis.....	7	
Diphtheria.....	1	9	Poisoning.....	1	1
Disease of the heart.....	24	3	Pyæmia.....	1	
Dropsy.....		3	Rheumatism.....		2
Effusion of brain.....		1	Softening of the brain.....		
Erysipelas.....		2	Suicide.....	1	
Enlargement of the heart.....	5		Tumor.....	2	1
" " liver.....	2		Uræmia.....	3	
Fatty degeneration of the heart.....	4		Whooping cough.....	2	2
Fever, scarlet.....		6	Total.....	227	151
" typhoid.....	7	2			

JEFFERSON COLLEGE'S NEW SURGEON.—At a meeting of the Faculty of Jefferson Medical College on Monday evening, H. Augustus Wilson, M. D., was elected Lecturer on Orthopædics in the Jefferson Medical College and Surgeon-in-Charge of the Orthopædic Department of Jefferson Medical College Hospital, vice O. H. Allis, M. D., resigned. Dr. Wilson is Professor of General and Orthopædic Surgery in the Philadelphia Polyclinic and College for Graduates in Medicine; Surgeon and Medical Director to the Polyclinic Hospital; Lecturer on Orthopædic Surgery in the Woman's Medical College, and was formerly Pathologist to the Presbyterian Hospital, and one of the surgeons at St. Mary's Hospital. He is a fellow of the College of Physicians, and of the Philadelphia Academy of Surgery; member of the Philadelphia County Medical Society, and the Medical Society of the State of Pennsylvania.

MEETING OF THE NATIONAL ASSOCIATION OF RAILWAY SURGEONS.—At the Kansas City meeting of the National Association of Railway Surgeons last year, it was decided to hold the next meeting at Buffalo, May 7, 8 and 9 of this year. But, on account of the meeting of the American Medical Association being set for the same time, it has been decided to change those dates, and to hold our next meeting at Buffalo, April 30, and May 1 and 2, to which all railway surgeons are cordially invited. To all railway surgeons sending their names and addresses to the Corresponding Secretary, a copy of the constitution and programme will be sent. All those wishing to read papers should send in the titles of their papers without delay. For further information inquire of
A. G. GUMAER, M. D.,
Corresponding Secretary, Buffalo, N. Y.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from March 3, to March 9, 1891.

By direction of the Secretary of War, Captain Louis M. Mans, Assistant-Surgeon, is relieved from further duty at Fort Stanton, New Mexico, and will report in person to the commanding officer, Whipple Barracks, Arizona, for duty at that station, relieving Captain Richard W. Johnson, Assistant-Surgeon. Captain Johnson, on being relieved by Captain Mans, Assistant-Surgeon, will report in person to the commanding officer, San Carlos, Arizona Territory, for duty at that station. Par. 7, S. O. 35, A. G. O., Washington, D. C., February 12, 1891.

Leave of absence for one month, to take effect on or about February 10, instant, is granted Assistant-Surgeon R. W. Johnson, U. S. Army. Par. 1, S. O. 16, Dept. Arizona, Los Angeles, Cal., February 4, 1891.

Leave of absence for one month, to take effect on or about February 15, 1891, is granted Major William D. Walventon, Surgeon, U. S. Army. Par. 2, S. O. 15, Dept. Platte, Omaha, Nebraska, February 7, 1891.

War Department, Washington, D. C., February 27, 1891. The following named officers having been found by army retiring boards incapacitated for active service on account of

disability incident to the service, are, by direction of the President, retired from active service this date, under the provisions of Section 1,251, Revised Statutes: Major William S. Tremaine, Surgeon; Major Leonard L. Loring, Surgeon. Par. 19, S. O. 45, A. G. O., Washington, D. C., February 27, 1891.

Lieutenant-Colonel Blencome E. Fryer, Assistant-Medical Purveyor, having been found incapacitated by army retiring board on account of disability incident to the service, is, by direction of the President, retired from active service this date, under the provisions of Section 1,251, Revised Statutes. Par. 15, S. O. 42, A. G. O., February 24, 1891.

By direction of the Secretary of War, the leave of absence granted Captain Alonzo R. Chapin, Assistant-Surgeon, in S. O. No. 17, January 31, 1891, Department of Dakota, is extended one month. S. O. 41, A. G. O., February 20, 1891.

War Department, Washington, D. C., February 27, 1891. Captain Frederick W. Elbrey, Assistant-Surgeon, having been examined by a board of officers, and found physically disqualified for the duties of a surgeon, with the rank of Major, by reason of disability incident to the service, is, by direction of the President, retired from active service with the rank of Major, under the provisions of the Act of Congress, approved October 1, 1890, to date from February 24, 1891, the date from which he would have been promoted to the grade, by reason of seniority, if found qualified. Par. 6 S. O. 45, A. G. O., February 27, 1891.

By direction of the Secretary of War, leave of absence for two months, on surgeon's certificate of disability, is granted Major Samuel Horton, Surgeon. Par. 7, S. O. 49, A. G. O., Washington, D. C., February 4, 1891.

By direction of the Secretary of War, Major Henry Lippincott, Surgeon, is relieved from duty at Fort Union, New Mexico, to take effect upon the final abandonment of that post, and will then proceed to Fort Adams, Rhode Island, and report in person to the commanding officer of that post for duty as Post Surgeon, reporting by letter to the commanding general, Division of the Atlantic. Par. 9, S. O. 46, A. G. O., Washington, D. C., February 28, 1891.

By direction of the Secretary of War, the extension of leave of absence, granted Captain William B. Davis, Assistant-Surgeon, in Special Orders, No. 22, February 5, 1891, Division of the Atlantic, is further extended one month. Par. 7, S. O. 46, A. G. O., Washington, D. C., February 28, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending March 7, 1891.

RUTH, M. L., Surgeon. Granted one month sick leave.

EVANS, S. G., Assistant-Surgeon. Detached from the Naval Academy and ordered to the U. S. S. "Monongahela."

PRICE, A. F., Surgeon. Ordered to the U. S. S. "Monongahela."

HARRIS, H. N. T., Assistant-Surgeon. Ordered for examination preliminary to promotion.

PICKERELL, GEORGE MCC., Assistant-Surgeon. Ordered for examination preliminary to promotion.

AUZEL, ERNEST N., Passed Assistant-Surgeon. Ordered to the U. S. S. "Lancaster."

NORTH, JR., JAS. H., Assistant-Surgeon. Ordered to the U. S. S. "Lancaster."

GAINES, JAMES H., Surgeon. Ordered before the Retiring Board, March 12, 1891.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the three weeks ending February 28, 1891.

PETTUS, W. J., Passed Assistant-Surgeon. Relieved from special duty as Inspector of Immigrants at port of Boston, Mass. Ordered to Marine Hospital, Boston, Mass. February 20, 1891.

PERRY, T. B., Assistant-Surgeon. Granted leave of absence for thirty days. February 20, 1891.

GOODWIN, H. T., Assistant-Surgeon. Relieved from duty at Cincinnati, Ohio. Ordered to Marine Hospital, New York City, N. Y. February 9, 1891.

COFER, L. E., Assistant-Surgeon. Detailed for special duty as Inspector of Immigrants, port of Boston, Mass. February 10, 1891.

EAGER, JOHN M., Assistant-Surgeon. Assigned to temporary duty at Cincinnati, Ohio. February 20, 1891.

APPOINTMENT.

EAGER, JOHN M., of Pennsylvania, commissioned as Assistant-Surgeon by the President, February 16, 1891.

The Times and Register.

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Whole No. 654.

	PAGE		PAGE		PAGE
CLINICAL LECTURE.		Fracture of Surgical Neck of Humerus.		LETTERS TO THE EDITOR.	
GLAUCOMA. By P. D. Keyser, M.D.	231	Strock	241	Treatment of Nasal Catarrh. Seilikovitch	245
ORIGINAL ARTICLES.		MEDICO-CHIRURGICAL COLLEGE:		Erisipelas. Nuding	245
THE INTRODUCTION OF DRUGS INTO THE		Bronchial Catarrh. Waugh		Cause of Cold Nose. Seilikovitch	245
HUMAN BODY BY ELECTRICITY. By Fred-		Checking Hemorrhage from the Lungs.		BOOK NOTICES.	
erick Peterson, M.D.		Waugh		Essentials of Surgery. Martin	246
232		Ecthyma. Shoemaker		Diabetes. Purdy	246
SOCIETY NOTES.		Typhoid Fever. Waugh		The Daughter. Capp	246
THE PHILADELPHIA ELECTRO-THERAPEU-		Inherited Syphilis in Children. Goodman		PAMPHLETS	
TICAL SOCIETY		241		246	
PHILADELPHIA COUNTY MEDICAL SOCIETY,		Diphtheria. Waugh		THE MEDICAL DIGEST.	
235		241		Surgical Treatment of Granular Conjunc-	
The Treatment of Corneal Ulcers by the		JEFFERSON MEDICAL COLLEGE HOSPITAL;		tivitis. Darier	
Actual Cautery. De Schweinitz		Infantile Leucorrhoea. Parvin		242	
235		Tumor on the Back. Keen		Apocodeine. Murrell	
Severe Puerperal Eclampsia—The Imme-		241		246	
diate Induction of Labor; Recovery.		Flexions of the Uterus. Parvin		Phenacetine in Sciatica. Practice	
Morrison		242		247	
237		Lumbago. Wilson		Acetanilide. Prov. Med. Jour.	
MEDICAL AND SURGICAL SOCIETY, OF		242		247	
BALTIMORE		Injection for Gonorrhoea. Keen		Trichloroacetic Acid. Gleitzmann	
240		242		247	
The Differential Diagnosis and Treat-		Enteralgia		To Stop Nose Bleed. Lusk	
ment of Peripheral Neuritis. Preston		242		247	
240		Fractures. Keen		Chorea. N. Y. Med. Times	
The Use of Splints in Fractures of the		242		247	
Long Bones, and a Case of Solution		Fatty Degeneration of the Heart. Brin-		Responsibility in Appendicitis. Vanderveer	
of Continuity of the Left Humerus at		ton		247	
the Surgical Neck. Prichard		242		A Simple Treatment of Corneal Ulcers.	
241		Obstinate Constipation. Rex		Valude	
THE POLYCLINIC.		242		248	
PENNSYLVANIA HOSPITAL:		Pharyngitis. Brinton		New Apparatus for Fractured Clavicle.	
Milk Toast for "Typhoids." Longstreth		242		Curtis	
241		EDITORIALS.		248	
COOPER HOSPITAL NOTES:		RESIGNATION OF DR. WAUGH		Dry Diet. Prov. Med. Jour.	
The Female Silver Catheter. Godfrey		243		248	
241		ST. CLEMENT'S HOSPITAL		Amputation Under Cocaine. Rhodes	
The Treatment of Compound Fractures.		243		248	
Benjamin		REMOVAL OF THE "JOURNAL" TO WASH-		Prevention of Cruelty to Human Beings.	
247		INGTON		Annals of Hygiene	
Antisepsis in Typhoid Fever. Davis		244		249	
241		ANNOTATIONS.		Treatment of Chronic Endometritis. Mundè	
		Detection of Tubercle in Sputum		Salt. Prov. Med. Jour.	
		244		250	
		Effects of High Altitudes on the Blood		MEDICAL NEWS AND MISCELLANY,	
		244		250	
		Asylum Conflagrations		ARMY, NAVY, AND MARINE HOSPITAL	
		244		SERVICE	
				252	
				NOTES AND ITEMS	
				-iv, xii	

Clinical Lecture.

GLAUCOMA.¹

By P. D. KEYSER, M.D.,
Professor of Ophthalmology.

THIS is one of the most important and most dangerous diseases of the eye. It stands third as a cause of blindness, in many of which cases the blindness has been due to bad treatment or neglect, for want of knowledge to diagnose the disease correctly.

The term glaucoma was applied by Hippocrates to all opacities situated behind the pupil. Later it was applied to those which presented a greenish appearance. It has been called arthritic ophthalmia, because supposed to be found in gouty persons. The term is now applied to a condition characterized by increased intraocular tension, with rigidity or hardness of the ball.

With the ophthalmoscope we see that there is always a peculiar alteration in the optic disc and vessels. The entrance of the optic nerve was at first supposed to have the appearance of being swollen, but later research, however, proved it not to be swollen, but cupped. This cupping is supposed to be due to the pressure of an excessive amount of fluids in the eye, causing the optic nerve to recede or give way.

There are several varieties of the disease. It is divided into inflammatory and non-inflammatory; some cases presenting marked inflammatory symp-

toms and others seeming to be free from them; again, it may exist primarily or may complicate another disease, being frequently produced by anterior synechia in old persons, so that we have also the primary and secondary forms.

All of the varieties lead to a condition of stony hardness in the ball, and a cupped disc, followed by complete blindness, and show common symptoms as follows:

1. Premonitory stage, (glaucoma incipiens.)
2. Stage in which the disease is fully developed, (glaucoma confirmata.)
3. Stage in which qualitative appreciation of light alone is present, the quantitative appreciation being lost, (glaucoma absolutum.)
4. Stage in which the eye has lost its sight, and degeneration of the ball begins to take place, (glaucoma degenerativa.)

There are two forms of inflammatory glaucoma, acute and chronic.

The acute form has, in the majority of cases, a premonitory stage, which is characterized by several or all of the following symptoms, which occur with intervals of remission. When they are present without remissions, it is no longer called the premonitory stage.

There is increased tension of the eye ball. To detect this press gently upon the top of the ball with the index fingers (not two fingers of the same hand) and the tension is determined by the sense of fluctuation. It is designated as normal, +1, +2, +3 or -1, -2, -3. The increase of tension is generally not very considerable at first, and the vision remains normal. Next there is a rapid increase of any pre-

¹ Delivered at the Medico-Chirurgical College, February 6, 1891. Reported by Mr. A. Hunter.

existing presbyopia, so that in the course of a few weeks the patient feels the need of a change of glasses. With the ophthalmoscope, the retinal veins are found to be tortuous, and become, as it were, varicose, which is not normal. Arterial pulsation, which is never seen in the normal eye, is noticed in the disc, and is always pathological. The pupil shows well-marked dilatation and sluggishness, and does not respond quickly to the light. To detect this compare the pupil of one eye with the other. The iris is pressed forward, causing a shallowness of the anterior chamber.

There is also a periodical dimness of sight, which seems to pass away on closing the eyes and resting awhile. This is caused by disturbances of the circulation, often brought on by eating, exercise, stooping, etc. The appearance of a rainbow, or halo, around a candle, is a constant symptom in the premonitory stage, and is a symptom seen only in glaucoma. Ciliary neuralgia is present, the patient complaining of pain running through to the head, which is due to pressure on the ciliary nerves. There is a reduction of the field of vision, which is especially noticeable towards the nasal side. The aqueous is cloudy at times, which cloudiness is uniform.

At the commencement, these premonitory symptoms show themselves only at long intervals. Later, however, they follow with shorter remissions, and finally do not disappear even after sleep.

The premonitory stage may last for years, but in the majority of cases does not extend beyond a few months. The patient has severe, excruciating pain in the forehead, temples, down the corresponding side of the nose, sometimes to the occiput. There may also be nausea and vomiting.

In the first attack of acute glaucoma, the cupping of the nerve is seldom seen.

The impairment of vision is not due so much to pressure on the nerves, but to decreased blood supply.

In the great majority of cases there are marked inflammatory symptoms.

The disease is in the ureal tract, (choroid, ciliary body and iris.)

The pressure being within the eye, from an excessive amount of the fluids therein, and the sclerotic being hard, stiff and unyielding, the choroid and optic nerve are pressed upon, the nerve being pushed back and cupped, and the iris, lens, ciliary body, etc., being pushed forward, thereby partly closing the canal of Schlemm. As this is the only channel for draining or filtration of the eye ball, the fluids are retained and the ball becomes rigid.

Several operations have been recommended for the treatment of this disease, but iridectomy is the only known cure for this condition, and in the chronic cases even this treatment is not always successful. Cutting the iris is supposed to act by relieving the tension and thus allowing the fluids to be drained off from the eye more readily. In making this operation, the iris must be cut through as near as possible to its attachment to the ciliary body. Eserine temporarily reduces glaucoma, and is the only drug known to have such effect.

In the fourth stage, after the sight has been lost, severe pain is apt to set in. Even then, the pain is sometimes relieved by iridectomy. Sometimes this operation is not possible, and enucleation must be resorted to.

In the severe acute inflammatory form, the patient may go to bed perfectly well and wake up in the night with intense pain and blindness. In these cases iridectomy cannot be resorted to immediately,

on account of the hemorrhage which occurs in the ball—often filling the anterior chamber. Eserine must be used until the swelling subsides and an operation may be performed.

Glaucoma seems to run in families, in which is found a normal increase of tension in the eye balls; in such cases great care must be exercised in the use of a mydriatic at any time. It rarely arises in the young, being seen generally after forty; is less frequent in males than in females, in whom it occurs after the menopause.

Original Articles.

THE INTRODUCTION OF DRUGS INTO THE HUMAN BODY BY ELECTRICITY.¹

By FREDERICK PETERSON, M.D.,

Chief of Clinic, Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons, New York.

IT is with some degree of diffidence that I have ventured to accept the kind invitation of the former president of your society to read a short paper upon the subject of Electric Cataphoresis, for the reason that I have already written about all that I know concerning it, and that I already find myself placed, with many of my good friends, among hobby-riders. Just as some of them are designated, or at least in danger of being so-called, Apostoli cranks, bacillus cranks, hydrotherapeutic cranks, and the like, so I have begun to hear faint whisperings of a similar term applied to myself in connection with anodal diffusion. But I wish to shun the imputation at once, by stating that it is not a panacea for all human ills, that, indeed, it is useful in only a few conditions of the human system. Presuming, then, that its limitations as a therapeutic agent are many, it is in order to speak of it first historically and then practically.

While the diffusion of solutions through a membrane by the anode, and of the sarcous substance of muscle from the anode to the cathode had been known to electricians, the earliest investigation of its power to drive drugs through the human skin was made by Richardson in 1859 with morphine, aconite and chloroform. Nothing further was written until 1886, when Wagner, Adamkiewicz, Lumbroso, Matteini, and others re-introduced the subject in connection with chloroform. Corning and Reynolds made some experiments later with cocaine solutions upon the anode.

My own trials have been conducted since 1888, and the results published from time to time since then.² The drugs made use of have been cocaine, chloroform, menthol, aconitia, onabain, strophanthin, carbolic acid, strychnine, succinimide of mercury, corrosive sublimate, iodol, iodide of potash, helleborin and the citrate, benzoate and chloride of lithium. Within a very short time experiments have been carried on by Cagney, of London, Gärtner, of Vienna, and Edison, in this country, with the results of all of which you are doubtless familiar.

¹ Read before the Philadelphia Electro-therapeutic Society, Thursday evening, February 12, 1891.

² Electric Cataphoresis as a Therapeutic Measure, *N. Y. Medical Journal*, April 27, 1889.

Note on a New System of Exact Dosage in the Cataphoretic Use of Drugs, *N. Y. Medical Journal*, November 15, 1890.

Farther Studies of the Therapeutics of Anodal Diffusion, *N. Y. Medical Record*, January 31, 1891.

When my first paper was read before the Section in Theory and Practice, of the New York Academy of Medicine, the cataphoretic power of the galvanic current was still so little understood, that considerable incredulity, if not positive disbelief in the existence of such a power, was manifested by some who participated in the discussion. But so much has been accomplished since then, that there is no longer any doubt as to the actual diffusion of drugs in solution through the skin, and into the subcutaneous tissues by the galvanic anode, and it only remains to be established what actual therapeutic value over and above any other means of administration this particular method may possess, and to what disorders it may be especially applicable.

One of the reasonable criticisms has been, that even if drugs were diffused as stated, exact dosage was impossible; but this is no longer a valid objection, since, very recently, it has become possible to make the doses accurate and certain.

A number of electrodes have been devised for cataphoretic purposes, some of them quite complicated, like those of Adamkiewicz, Munk, and my own. But these are now no longer necessary. The cataphoretic electrode should be very simple—an ordinary metal one, either with or without a covering of cloth or sponge. Electrodes of tin are the cheapest, and the oxides may be easily scraped off when they collect. Gold or platinum would be better, but are very expensive, about equally so.

The ordinary sponge electrodes may be employed with solutions, such as those of lithium, iodide of potash, iodine, and the like, where precision in dosage is not required; the plain metal ones, however, for the more careful administration of medicaments like cocaine, aconitia, strychnine, and helleborin. A narrow rim of rubber around the metal surface is needed to prevent evaporation. A disc of cotton cloth, or tissue or blotting paper, may be cut to fit the metallic surface, and upon this is dropped any desirable quantity of the drug in solution. The wet disc of paper is next the skin and prevents burning.

It is sometimes useful to prepare the skin a little before treatment, by rubbing with ether, to dissolve out the oil globules. The anode being applied with the drug, the cathode may be placed anywhere upon the surface of the body, and a current of any endurable strength turned on. The stronger the current the speedier the effect.

Besides the use of these simple electrodes, it is often desirable to make more extensive applications over wider areas. If, for instance, it were wished to diffuse a solution of lithium about a large joint like the knee, a sufficiently large strip of zinc is covered with sponge or cloth saturated with the solution, tied around the extremity, to be then connected with the anodal rheophore. For diffusion through the whole body a bath-tub is used, one either constructed for the purpose or any ordinary bath-tub. The common bath-tub of our houses is readily converted into an anode by placing a large sheet of zinc on the bottom, and connecting it with an insulated copper wire. The sheet of zinc is then covered over with a board to prevent its contact with the body. When the patient is immersed in the bath, he merely keeps one arm out to grasp the cathode, and the circuit is made.

These are in brief the means by which drugs are introduced into the body, and it is clear that any soluble agent may be employed in some one of the ways described. The poisonous medicaments, which are to be administered in accurate doses, are kept either in solution (cocaine 10 to 20 per cent., helle-

borin 1 per cent., etc.), or discs of filtering paper impregnated with solutions and dried, and containing a known quantity of the remedy, are kept on hand for the purpose. Such cataphoretic discs may be made by any pharmacist.¹

As regards now the therapeutical advantages of anodal diffusion, it would seem as though it had its widest applicability in maladies of the skin and mucous membranes, or of immediately subjacent tissues; but, of course, it may be given a much greater scope in conjunction with mineral, antiseptic and alterative baths, which is a problem for the investigations of others in the future.

Dermatologists have already evinced considerable interest in the subject, but I have no doubt that the rhinologist, laryngologist and gynecologist who have so much dealing with mucous membranes, will, in the course of time, avail themselves profitably of a power which promises so largely.

Surgeons have employed it frequently and successfully for local anæsthesia in minor surgical operations.

The physician cannot fail to take up the particular line pointed out by Edison, and make use of local applications by means of sponges, or general by means of baths, for the purpose of influencing local and systemic affections like gout and rheumatism.

I was led myself into making a study of electric cataphoresis by my own work in a neurological line, and my first experiments were conducted with a view to relieving pain. I received the suggestion after vainly endeavoring to combat severe supraorbital neuralgias in several patients. All known appliances and agents of the healing art had been ineffectual, blistering, electricity, aconitia, and the progressive series of narcotics and anodynes, which generally terminate with the morphine habit. One of the patients had suffered from morphine inebriety for a year, but had recovered from that with her supraorbital anguish unassuaged. I found that ten to twenty per cent. solutions of cocaine on the anode gave absolute relief in these cases for from four to ten or eleven hours, and without constitutional effects of any kind. A deep analgesia was produced in the area covered by the anode. No doubt constitutional effects would ultimately result by indefinite continuance of the application.

Since that time I have made it a point always to use the cocaine solution in any sort of superficial pain in which I think the anode to be of advantage. The method does not mitigate neuralgic pains which owe their origin to lesions far back of the point to which the electrode is applied, as in disease of the Gasserian ganglion, or the idiopathic neuralgias of central origin; and it is here that cocaine cataphoresis has an actual diagnostic significance. If the pain is relieved by the treatment, the lesion is in the immediate neighborhood, or peripheral to the anæsthetized area, and this would furthermore suggest the possibility of permanent cure by neurectomy. This idea of the diagnostic value of cocaine cataphoresis is Dr. Starr's, and it has some sort of corroboration in a case of intense supraorbital neuralgia which I lately saw with him. A 20 per cent. solution of cocaine used with a strong current for a considerable period of time did not diminish the paroxysms of pain in the least. A few days afterward neurectomy was performed, and this also had no effect upon the neuralgia.

Cocaine employed in this way does not *cure* neuralgias of peripheral origin. All that is claimed for it is

¹ Otto Boeddiker, pharmacist, 954 Sixth avenue, New York, makes them for my use.

that it gives relief without producing constitutional effects, and is, therefore, superior to any narcotic given internally, and to any other local application.

Other local anæsthetics are chloroform, aconitia, onabain, strophanthin (Arnaud's), helleborin, menthol, and carbolic acid.

Chloroform causes a dermatitis, and should be used only when counter-irritation is desired in conjunction with a transitory anæsthesia. I have employed chloroform cataphoresis in one case of cervical neuralgia with good effect. Helleborin and aconitia I have also used successfully, but the latter, while it gives rise to a deep analgesia, also causes painful smarting and burning, unless combined with a cocaine solution.

While my experience with the method has been chiefly in neuralgias of superficial nerves, I have not failed to give it a trial in other conditions where it seemed to be expedient. I have been using cocaine and helleborin with the anode in two cases of tic convulsif of late, placing the electrode over the trunk of the facial or one of its branches. Whatever may be the explanation of its effect, these cases certainly show very great improvement, and a remarkable diminution of the spasm after each application, such as was not obtained from the employment of the electric current alone. In a case of blepharospasm, cocaine cataphoresis practised near the outer angle of the eye produced a very marked change in the extent and frequency of the movement. I have no doubt, however, that the results would be better still if we had some drug to use with the anode which would act upon motor nerves in the same way as the local anæsthetics act upon sensory nerves; if, in other words, we had some trustworthy local paralytic. Atropia and curarin do not seem to answer the purpose.

There can be no doubt that the effects of the galvanic current upon nutrition are in part due to the cataphoretic transfer of molecules of protoplasm and liquid from one cell to another, or from a cell to a capillary vessel in the path of the anodal stream, and since the diffusion takes place more readily and more quickly in direct proportion to the current strength, it behooves us to employ as many milliamperes as feasible in our galvanization of the atrophied and paralyzed extremities of poliomyelitis, chronic neuritis, and peripheral nerve trauma. Moreover, there would seem to be a possible advantage in the use of nutritive emollients in conjunction with the labile application of the anode to the atrophied member, just as they have been combined from time immemorial in the exercise of the aliptic art (massage).¹

As a last word let me say that while the constant current has proved so useful to the medical profession for diagnosis, for stimulating nerve and muscle, for electrical endoscopy, for cauterization, we must not neglect its cataphoretic property, by which remedial agents are diffused through the tissues and fluids of the body to improve nutrition, to produce anæsthesia, to relieve pain, to destroy germs, to modify morbid processes, and to make soluble chemical combinations with deleterious substances which frequently collect in the organism.

ALABAMA has amended her Medical Registry Act by another that provides a penalty for non-compliance with the provisions of the former.

¹The Aliptic Art. By Frederick Peterson, M.D. *Philadelphia Medical News*, August 11, 1883.

Society Notes.

THE PHILADELPHIA ELECTRO-THERAPEUTICAL SOCIETY.

PRESIDENT, M. W. GRIER, IN THE CHAIR.

THE Society met at 1531 Spruce street, on Thursday, February 12, 1891, at 8 P.M.

The main feature of the evening was the reading of a paper by Dr. Frederick Peterson, of New York, entitled "The Introduction of Drugs into the Human Body by Electricity." (See page 232.) At the conclusion of the paper, Dr. Massey, remarked that we were under great obligations to Dr. Peterson for his able and interesting paper, read this evening before this Society, and moved that a vote of thanks be extended the doctor as an expression of our appreciation, which was unanimously carried. The following discussion was then had upon the subject presented in the paper.

DR. MASSEY thought that we ought to discriminate between the efforts of chloroform upon the tissues as applied under a watch glass, or by means of the galvanic current. He had used the iodide of potassium very little, but had generally applied it by the negative pole. He does not see how complex alkaloids are made to penetrate the skin. He had used a 4 per cent. solution of cocaine in the vagina with a current strength of 150 ma., but no relief was experienced from the pain. He used, however, alternating currents, followed by anodal diffusion. Had also used large abdominal applications of cocaine, with 150 ma., in which he thought there was benefit. Voltiac alternatives were also used in this case, but without shock.

Why not use the cathode with all the alkaloids?

DR. GRIER. His experience with cataphoresis was very limited. Had used a 4 per cent. solution of cocaine, also chloroform with the anode, 25 to 75 ma., for two to three minutes, in painful knee joints. In one case of painful knee joint he noticed a curious effect, no drug being used. With the anode at the knee, and the cathode at the foot, no relief was obtained, but with the cathode on the thigh the pain was overcome in a short time. He had noticed other cases, in which the reverse (or ascending current) gave relief, when the descending current increased the pain.

DR. REDDING thought the effects were solely due to polarization in such cases.

DR. WALLING. I have administered various substances in the manner indicated, using a carbon electrode, with a hard rubber band as an insulator, and in order to prevent the carbon from becoming charged with the medicament it is thoroughly saturated with hot paraffine before being used. I treat all my carbons in this way. Regarding the method so ably and fully presented by Dr. Peterson, I desire to present a different view as to the action of the poles of a galvanic series upon some of the substances named. It has been my practice and teaching that the chemistry of the poles, and the substance used, should bear the proper relation to each other.

For instance; Dr. Peterson uses the anode with all his drugs, while I use it as follows: For all substances, such as the hydrochlorate of cocaine, the morphine salts, quinine salts if used, aconitia, hyoscyne, and in fact all the alkaloids, or when I wish to introduce the base into the tissues I use the anode, but for all drugs, where it is not the base, but the sub-

stance that takes the place of an acid, that is desired, I use the cathode. For instance; all of the iodides, iodine, iodol, the bromides, if used, etc., etc., should be applied with the cathode. I have here some hard coagulated egg albumen; also a solution of the iodide of potassium in water. I now place a piece of absorbent cotton, well wetted in the potash solution upon a negative carbon, and the white of egg upon that, and a small piece of cotton wet in water upon the albumen. Upon the latter, or neutral cotton, I now place the positive carbon, and having a current strength of about 30 ma. you soon notice the characteristic color and odor of free iodine. It has traversed the hard, dense albumen, and appears at the positive pole. If now I reverse the poles, the iodine will be driven back to its source. You cannot get such effects by using the anode. The iodine will collect at the anode and stay there.

DR. MASSEY. I believe that you have iodide of potassium driven into the tissues with both poles, the iodine only showing at the poles.

DR. WALLING. Not so. We must remember that we are now dealing with a dead animal substance, incapable of taking up and appropriating a drug differing in this respect from the living cell in the human body. Then, too, there are the various substances entering into the formation of the tissues which must be taken into account. I hold, gentlemen, that we must remember the chemistry of the substances with which we are dealing, and act accordingly.

DR. PETERSON, in closing the discussion, said that he was glad to have gained some new points from the members of the Philadelphia Society, and among them were the use of the carbon electrode after its being treated with hot paraffine, and the possible employment of the cathode with certain drugs. While he had always borne in mind the relations of the anions and kations to either pole in electrolysis, he thought that in the cataphoretic action we had to do with another and considerably different power. Dr. Walling had beautifully proven the transmission of iodine through coagulated albumen from the cathode to the anode, and Dr. Peterson acknowledged that this showed the tendency of the ions to appear upon the poles, even at a distance, where there was no membrane in the way, but it did not disprove the fact that iodide of potash appears in the urine shortly after its diffusion by the anode through the skin. Electrolysis was not necessary to cataphoresis in his opinion. He did not believe that chloroform was decomposed when used upon the anode, and that a certain part had a tendency to go to the cathode, nor did he believe the alkaloids were decomposed unless possibly when used in combination with acids. Another point to be borne in mind was that experimenting with coagulated white of egg was different from the osmosis which takes place through membranes. We all know how readily boiled white of egg takes up by mere diffusion colors upon the outer shell, as in Easter eggs. It would be important to know how readily and quickly the iodide of potassium solution penetrated the albumen in this experiment, and he did not think diffusion by the cathode as yet a proven fact, but he confessed that there certainly seemed much to study and much to learn yet with regard to electric cataphoresis, and he was glad of the honor and opportunity of presenting his ideas and learning those of others. Adjourned.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

DR. G. E. DE SCHWEINITZ read a paper on

THE TREATMENT OF CORNEAL ULCERS BY THE ACTUAL CAUTERY.¹

As long ago as 1873, Martinache, of San Francisco,² recommended the application of the actual cautery for the treatment of hypopyon keratitis, and about the same time Samelsohn³ advocated the galvanocautery in affections of the lachrymal apparatus, conjunctiva, and ciliary border, a method which, before that time, in the hands of Middeldorpf, Bruns, Althaus, Groh, and other surgeons, had proved its value in a variety of types of special practice. Actual cauterization of the cornea later received the earnest recommendation of Gayet, Grandmont, Martin, and Fuchs, but at first did not meet with universal approval. Subsequently the results published by Nieden, Schweigger, Knapp, and Gruening, placed the method upon so secure a basis that the actual cautery has become a well-nigh indispensable instrument in the management of certain types of ulcerative keratitis, and is a surgical procedure constantly employed by every practical ophthalmic surgeon. A certain amount of difference of opinion exists as to the character of cases to which the heated point of either a galvano or thermo-cautery should be applied, although there is practical unanimity among all who have had any experience, that the actual cautery is the best radical destroyer of the sloughing tissues found in ulcers of mycotic origin typified by the serpentic ulcer of the cornea; or, in the language of Dr. Gruening: "In the incipient stage of ulcer corneæ serpens, characterized by the superficial arc of propagation, the actual cautery fulfils all the requirements of a classic procedure, acting *cito, tute et jucunde*." In the hands of others the use of the instrument has not been limited strictly to serpentic ulcers, but also, as in Nieden's observations on more than one hundred cases, in addition to serpent and rodent ulcers, in scrofulous abscess both marginal and central, vesicular keratitis, with a patch of infiltration at its apex, parenchymatous corneal abscesses occurring in trachoma, and even examples of xerosis of the cornea. Enough has been said to emphasize what is well known, that the method is among the most suitable of these employed to check the spread of local infections in sloughing ulcers, and it remains to add to the numerous reports upon this subject the few cases that I have treated with my own hand, about thirty in number. These include:

1. Small central ulcers in children of bad nutrition, which either through neglect or imperfect treatment have tended to form an abscess.
2. Shallow central ulcers in scrofulous patients, the ulcer having a slightly turbid base, very chronic in its course, and declining to heal under ordinary remedies; in all of the cases of this character there were the appearances of former granular lids, and in one active trachoma.
3. Phlyctenular ulcers, beginning in the form of small pustules at the corneal border, speedily ulcerating and surrounding themselves by a yellow area of infiltration, and with a strong tendency to perforate.
4. Infecting or sloughing ulcers associated with pus in the anterior chamber, or, in other words, hypopyon keratitis.

¹ Read February 11, 1891.

² *Pacific Medical and Surgical Journal*, 1873.

³ *Archives of Ophthalmology and Otolaryngology*, vol. iii., Part 2, p. 124.

ONE hundred and eleven new doctors graduated from the University of Nashville, February 27.

5. Marginal ring ulcer, or that form which is sometimes seen in purulent ophthalmia, occurring just at the circumference of the cornea, often covered up by the chemotic conjunctiva, and very likely to perforate, because it is hidden by the swollen tissues and not observed.

6. Herpes of the cornea, one being an example of an ulcer associated with herpes zoster ophthalmicus, and the other true herpes of the cornea in which a vesicular eruption occurs, breaks down, and leaves an ulcer; that form which has been seen under the same circumstances as when herpes occurs around the lips and nose.

I will not give the clinical history of these cases, as it would simply burden the communication unnecessarily with detail, except to say that the actual cautery was applied only after other treatment had been used, either at my hands or at the hands of some one else. I have not a single bad result to record. In three of the cases perforation of the cornea took place, with evacuation of the aqueous humor, twice as an accident during the application of the cautery, and once when the ulcer had nearly perforated and Descemet's membrane had bulged forward, forming its floor, and I deliberately burned through the tissue. In the cases of hypopyon keratitis perhaps it would have been wise, as Nieden has recommended, to have perforated the cornea with the thermo-cautery, but as they were the first ones in which I performed the operation I did not wish to do this; in the second place, the hypopyon was not of great extent, and in the third place, I wanted to see whether the application of the cautery to the surface of the cornea alone would produce absorption of the pus.

Method of Application.—Various forms of cautery have been employed, the most suitable being a small Paquelin thermo-cautery, or the galvanocautic loop, the latter in the form devised by Prof. Sattler, of Erlangen, is, according to Nieden, especially satisfactory. My experience has been entirely with more crude instruments, but which have answered the purpose, either a delicate probe suitably made of platinum, according to the recommendation of Gruening, or if this is not at hand, an ordinary steel needle, about the size of a knitting-needle. According to the situation of the ulcer, and according to the condition of the iris, the eye is either atropinized or eserinated, a few drops of cocaine are instilled to produce anæsthesia, and a Bunsen burner is placed adjacent to the head of the patient, the probe is heated red hot, transferred to the point of disease, all of the sloughing material gently but thoroughly cauterized, and without undue pressure. It is not necessary to separate the lids with a stop speculum; in fact, this is probably a disadvantage, putting some pressure upon the ball of the eye. They may be parted by the hands of the operator himself, or, if he is to be trusted, by those of an assistant. In restless young children, although not necessary, it is safer to induce general anæsthesia simply for the purpose of securing perfect quiet. After the application, the eye may be washed out with solution of boracic acid, a drop of atropine instilled, and a bandage applied. This latter procedure also is not required, but it has seemed to me to make the patient more comfortable. Quite commonly, on the next day the bulbar conjunctiva is considerably injected, the eye looking angry and red. If the cautery has been applied properly, the ulcer itself is cleaner and healthier, the surrounding cornea less nebulous, and if there has been pus in the anterior chamber this, in my very limited experience, has been absorbed, or nearly so. Usually, one appli-

cation is sufficient, but it is well known this may be repeated on the third or fourth day, and, indeed, several times repeated, according to the indications, provided the original destruction of tissues has not been sufficient. I have never applied the cautery more than three times to the same ulcer.

Subsequent Treatment.—If the case has been successful, and it is not necessary to reapply the cautery, the treatment becomes simply that of an ordinary corneal ulcer, which has been converted from a sloughing process, or from a chronic process, or from a process which relapses, into a healthy ulcer, into an ulcer with the impulse of an active stimulation, or into an ulcer with the tendency to relapse removed.

The Question of Scars.—It has been urged against the employment of the actual cautery, that a much more dense scar or leucoma was likely to form than when the ulcer was treated in the ordinary way. This, in the experience of the best ophthalmic surgeons, is a mistake. In my limited series of cases it certainly has never occurred that the resulting scar was greater than would have occurred had the cautery not been used; and I am strongly convinced that in every instance the scar was smaller than would have been the case had I not employed this agent. Touching this point, the following quotation from Fuchs¹ is *apropos*: "On the cauterized spot an opacity always remains, but as one cauterizes only that spot which without this would meet with the ulcerous disintegration, the final opacification on account of this will not be greater than it would have been in the first place." As I have just said, in the belief of many, it will not be as great.

In one example of central corneal ulcer going on to the formation of an abscess, after two cauterizations, in the second one of which I perforated the cornea, and in which cure took place in less than two weeks, although the original disease had been running on for several months in the form of a series of relapses, the ultimate vision was $\frac{20}{20}$ in spite of the nearly central situation of the disease. In the case of true herpes of the cornea, where a single application of a button cautery, very lightly applied, checked a process that began in September, and was active at the end of the following December, the result was only a faint diffuse haze over the center of the pupillary space, which, by the correction of an astigmatism of a half dioptic, yielded a slightly clouded vision of $\frac{20}{20}$. In a case of nearly central ulcer of the cornea with unhealthy margins, associated with phlyctenula around the margin, which had relapsed a number of times, in which the photophobia was very great, and the brow pain severe, and in which good healing took place twenty days after the application, the resulting scar consists of a whitish band running diagonally across the pupil space, with a few old vessel channels traceable from it to the margin, and scattered through it several minute, white saturated spots, the vision is $\frac{20}{20}$, and one and one-half meter print can be read.

Contra-indications.—In very extensive ulceration, involving a large area of the cornea, I would not use the actual cautery, certainly not until I had tried all other means, because, in order to make it effectual and to stop the sloughing process, the application would have to be so great as to lead to the possibility of an excessive reaction. It should be remembered, however, that in just such cases very good results have been obtained. I have had no personal experience. The actual cautery should not be applied

¹ Lehrbuch der Augenheilkunde, p. 169.

to an ulcer which has already perforated, and to the margins of which the iris has become adherent. Some cases of this character are on record, in which a destructive inflammation, with subsequent loss of the eye, has been occasioned by the traveling back of the inflammation from the inflamed stump of the iris. The actual cautery does not seem to me to be indicated in those cases of hypopyon keratitis in which there is a large ulcer associated with a hypopyon that nearly fills the anterior chamber, and in which it can be demonstrated that the collection is exceedingly tenacious, having assumed the character of a slough. Here Saemisch's operation would seem to be the better; because, after its performance a delicate forceps can be introduced, and the offending material bodily removed, or it can be washed out, preferably with the admirable syringe devised by Lippincott, of Pittsburg. As Gruening aptly has said: "In these cases a combination of the two methods appears to be rational, for the actual cautery destroys the septic material of the cornea, and the Saemisch section removes the septic material from the anterior chamber." The actual cautery should not be used simply because there is a corneal ulcer. It is applicable especially to sloughing ulcers, to ulcers in which the spread of local infection is the dominant symptom, to ulcers which decline to heal under more moderate means, like the bichloride of mercury method, especially advocated by our fellow-member Dr. Jackson, the use of eserine, which has been ably insisted upon by Dr. Hansell, with whose conclusions I am in entire accord, or the use of milder cauterizations with solutions of nitrate of silver, or powdered iodoform, or scraping the base of the ulcer with a small curette. Touching the limitation of the suppurative process in sloughing ulcers, Mr. Brudenell Cartersomewhat enthusiastically says: "The most potent medicinal agent for the fulfilment of the first indication is eserine, which has been the means of saving numbers of eyes which without it must have perished."

Agreeing thoroughly with this author's estimate of the value of eserine, not only in sloughing ulcers, but in a host of other forms of corneal disease characterized by solutions in its continuity, we may say that in the event of the failure of this drug, and other well-recognized treatments, the actual cautery, in its power to limit suppurative processes, "has been the means of saving numbers of eyes," and with reasonably good vision, which without it might have perished.

Discussion.—DR. EDWARD JACKSON: My experience with the actual cautery is comparatively small and somewhat removed in point of time. It is nearly four years since I last used it. Though I recently had a case in which I seriously questioned whether I should not have used the actual cautery in addition to the Saemisch operation. I am convinced that heat is the only antiseptic which will penetrate as far as the tissue is involved in cases of corneal suppuration. But wherever it does penetrate to destroy the septic material, it also destroys corneal tissue; and my experience has been that scraping away of the softened surface, with some pressure on the deeper portions, a method of securing thorough drainage to the tissue, with the use of mercuric chloride solutions, have been sufficient to check the process in all cases in which I have tried it. Still there can be no doubt about the efficiency of the cautery. If but a single application can be made, it is probably the most certain means of arresting suppuration. Where, however, the case can be watched, the scraping repeated as soon as necessary, and constitutional treatment

adopted, with the use of eserine, which certainly has an action on the nutrition of the cornea, I think that suppurating ulcers can be cured with at least as little subsequent opacity as with the cautery.

DR. CHARLES H. THOMAS: I have not employed the actual cautery, but I have found that thorough wiping of the ulcers and touching with the solid stick of nitrate of silver, have answered well. In the early stages the insufflation of calomel will do, but later something more decided is required.

DR. SAMUEL D. RISLEY: I have not used the actual cautery in the treatment of corneal ulcers; not, however, from any lack of confidence in its merits, since it receives the commendation of so many skilful observers. My treatment of this serious form of disease has been more conservative. It is probable that the cautery is useful as a rapid and effectual means of destroying the disease germs in the tissue. This I have sought to do by washing the ulcer thoroughly with moderately-strong solutions of bichloride of mercury, and following it with a saturated solution of nitrate of silver, applied by means of a very small pledget of cotton on a fine-pointed cotton-carrier. By this means the action of the silver upon the tissue can be confined to the desired area much better than when applied in the form of the solid stick.

Excellent results seem to follow this procedure, but I have frequently been sorely disappointed. Since hearing Dr. de Schweinitz's careful and interesting description of this dangerous form of eye disease, and the exceedingly good results following the use of the actual cautery in its treatment, I am resolved to resort to it in the future, and cannot but feel that in some of the disappointing results in the past the cautery might have secured a more favorable outcome.

DR. GEORGE E. DE SCHWEINITZ: The actual cautery should not be used, as a rule, until the ordinary and milder methods have been employed. In some instances, without the previous administration of other remedies, I have touched the point of ulceration with the actual cautery used as an active stimulant and very lightly applied, as, for instance, in the shallow central ulcers associated with chronic trachoma, and believe that under this treatment they have healed more rapidly than they would have done by other means. If the actual cautery is applied carefully, and not, as recommended in some text-books, beyond the edge of the ulcer and into the healthy tissue, and only that portion of the structure burnt which would be destroyed by the process of disease, there will be no more opacity of the cornea than if it had not been applied. In certain types of infecting ulcers, with a creeping tendency, it seems to me there should be no delay in the employment of this most potent remedy.

DR. WILLIAM H. MORRISON read a paper on
SEVERE PUERPERAL ECLAMPSIA—THE IMMEDIATE
INDUCTION OF LABOR; RECOVERY.¹

A brief examination of the volumes of the *Transactions* of this Society for a number of years past, shows that among the varied subjects presented for discussion, that of puerperal convulsions has been wanting. It is especially important that in an affection like this, which in the majority of cases comes suddenly and without warning, the practitioner should have a definite idea as to the proper treatment, that he may be prepared to act promptly and efficiently. It is with the desire of bringing this subject before the profession, and with

¹ Read February 11, 1891.

the hope of inciting a full and thorough discussion of the etiology and management of this serious malady, that a brief report of a recent case is presented.

Mrs. X., aged twenty-two years, married nine months, and pregnant for the first time, called on me January 1, 1891, with the request that I attend her in her confinement. She was pregnant seven and a half months, had been in perfect health, and had not suffered with sick stomach or other ailments common to her condition. She stated that she had never felt better in her life until within a few weeks previously, when her kidneys had begun to trouble her. During the day she was obliged to pass water frequently, and at night had to get up twenty or thirty times to urinate. The water passed was said to be thick and muddy. She brought a specimen with her, which on examination was found to contain one-half its bulk of albumen. Microscopical examination failed to reveal tube casts. She was given a mixture containing tincture of digitalis and bromide of potassium, and requested to bring another specimen of urine in the course of a week. I might state at this point, that one or two years previously I had examined the urine of this patient and found it normal.

At six o'clock the following evening, January 2, the mother of the patient came, stating that her daughter was suffering with headache, and asked that something be given to relieve it. Five grains of antipyrine were ordered, with instructions to return in two hours if the headache was no better. At the same time, I told the mother that owing to the state of the kidneys there was a possibility that convulsions might occur, and that if the condition of the urine did not speedily improve, the advisability of inducing premature labor would have to be considered. I heard nothing more from the patient until 2 A.M., eight hours later, when I was summoned with the statement that she had a convulsion. I found that she had had two severe general convulsions in which she had bitten her tongue, but when I saw her she was quiet and semi-conscious, and soon after roused sufficiently to recognize those about her. She was given ten grains of Dover's powder, which was swallowed readily. A specimen of the urine which had been passed at eleven o'clock the previous evening was secured, and found to contain over one-half its bulk of albumin. I regret to say that the specific gravity was not noted. No tube-casts were found. At this time I informed the family that in the morning I would call Dr. H. A. P. Neel, of Tacony, in consultation, and if he approved, would at once induce premature labor. To this proposition prompt consent was given. From this time until 8.30 A.M., when Dr. Neel saw her with me, she had at least four convulsions, and in the intervals there was a constant tendency to muscular twitching. Dr. Neel agreeing as to the propriety of bringing the pregnancy to an end as speedily as possible, the vagina was irrigated with a bichloride solution and an English flexible catheter, the openings of which were closed with wax, and which had been soaking for an hour in a bichloride solution, was introduced its entire length between the membranes and the walls of the uterus, care being taken not to rupture the membranes. The os was found dilated sufficient to admit one finger, and the head was presenting. A bichloride tampon was then placed in the vagina. Two ounces of a dark, chocolate-colored urine were withdrawn with the catheter.

From this time the patient was under constant observation. There was a tendency to the recurrence of the convulsions, which were only prevented by

the administration of ether. The anæsthetic was not given continuously, but only when the twitching of the eyelids, or of the muscles of the fingers, showed that a paroxysm was imminent. By this means the majority of the spasms were averted, although several did occur. While waiting for labor to begin, not having pilocarpine at hand, I injected ten minims of fluid extract of jaborandi hypodermically, and in the course of thirty minutes injected twenty minims more. This produced free sweating and salivation. During this time the patient remained in a practically unconscious condition. About one hour after the introduction of the bougie, labor pains began to manifest themselves and were evidently felt, at least to a certain extent, by the patient, as was shown by her restlessness when the uterine contractions occurred. After the pain had continued an hour and a half, the vaginal tampon was removed, and it was found that the os had dilated to a diameter of two inches. The bougie was then removed and the vulvar orifice carefully dilated to an extent readily admitting the hand, and the os was stretched digitally until sufficient dilatation for the application of the forceps was secured. The membranes were then ruptured, the Hodge forceps applied and efforts at extraction cautiously made. The child was delivered without any tear of the cervix or of the perineum, five and one-half hours after the introduction of the catheter and three-fourths of an hour after the application of the forceps. Although the labor was a comparatively easy one, and not of long duration, the child was dead, and probably had died in some of the earlier convulsions. The uterus contracted well and the placenta was delivered without difficulty. During the labor no convulsions occurred, ether being given in sufficient quantity to quiet restlessness. Immediately after labor she had two spasms, apparently the result of the disturbance produced by removing soiled clothing and changing her position in bed. She then became much quieter; the muscular twitchings entirely ceased, and the use of the anæsthetic was suspended. The administration of chloral was now begun, first by the rectum, but as the patient swallowed readily, and as the injections caused some irritation, it was later given by the mouth in fifteen-grain doses, repeated every two hours. In all, about seventy-five grains of chloral were administered. The patient was also given water in small quantities at short intervals.

The axillary temperature immediately after delivery was found to be 104.2°. Cold was therefore applied to the head, and the body sponged with tepid water every half hour. This was followed by a steady fall of temperature, until at midnight the normal had been reached. At 5 P.M., the catheter was introduced and an ounce of dark, thick urine withdrawn. The use of the catheter was followed by two convulsions. At this time ten minims of the tincture of digitalis were administered subcutaneously, and the remedy continued by the mouth in five-drop doses every two hours. During the evening the convulsions recurred at intervals of two or three hours, occurring as a rule in groups of two, the last one appearing at midnight, and being comparatively light. The free administration of water by the mouth was continued during the night.

The patient rested quietly through the night, without any twitching of the muscles, but did not regain consciousness. At 5 A.M. there was a copious discharge of urine in the bed. This was repeated twice during the day, but by evening she had regained consciousness sufficiently to used the bed-pan. Ex-

amination of the urine then passed showed that it contained one-sixth its bulk of albumen, but the microscope failed to reveal tube-casts. During the day (January 4) she could be roused, and when spoken to would open her eyes, but not reply to questions. Skimmed milk was given in small quantities, frequently repeated, and the digitalis continued. The administration of chloral had been stopped the previous evening. Calomel in one-sixth grain doses was ordered to be repeated every hour until the bowels were freely moved. The mental power steadily improved until, by the evening of January 5, she appreciated questions addressed to her, and replied to them intelligently, although the brain had evidently not yet resumed its normal condition. From this time forward the progress toward recovery was steady and rapid. The urine passed January 11 had a specific gravity of 1028, and contained one-fourth its bulk of albumen. No tube-casts were found, but there were many blood-corpuscles, and it is probable that a large portion of the albumen was due to the admixture of blood from the uterus. Examination of urine passed January 19, showed a specific gravity of 1020, and complete absence of albumen. February 10, the urine had a specific gravity of 1028, an acid reaction, and contained no albumen.

Among the interesting features in this case are, (1) the sudden appearance of convulsions in a person who had been apparently perfectly well, with no evidence of nervous trouble until a few hours previously; (2) the almost complete suppression of urine for over twenty-four hours, no urine being passed from 11 P.M. Friday until 5 A.M. Sunday, with the exception of three ounces withdrawn by the catheter; (3) the steady and rapid improvement that followed the emptying of the uterus. The total number of convulsions was between twenty and twenty-five, extending over a period of twenty-two hours.

The exact etiology of puerperal convulsions has not yet been positively determined. The majority of authorities agree that they are due to a toxæmia, the result of interference with the action of the kidneys, but the precise toxic agent has not been determined, nor has the manner in which the disturbance of the kidneys is brought about been agreed upon. Some hold that the interference with the function of the kidneys is due to pressure of the enlarged uterus upon the abdominal veins; others, that it is due to pressure upon the kidneys themselves, or upon the ureters; while in a recent paper,¹ Dr. James Tyson advocates the view that this interference is the result "of the irritant effect upon the renal cells of some toxic substance in the blood, the precise nature of which is unknown, but which probably represents excrementitious substances from the mother and foetus." Whether we accept the view advocated by King, that the renal congestion and inflammation is the result of pressure upon the inferior vena cava and iliac veins, or that of Halbertsma, that it is due to pressure upon the ureters, or that of Tyson, that it is due to the presence of excrementitious matters from the mother and foetus, we find that in each of these theories an essential factor in the production of the renal derangement is the presence of the foetus. Therefore, the primary indication in the treatment of puerperal convulsions prior to delivery is the speedy termination of pregnancy. While by venesection, the administration of ether, chloroform, chloral, veratrum viride, and the like, we may control the paroxysms, it is only by the removal of the cause

which has produced and is continuing the renal congestion and inflammation, that we can expect to restore the functional activity of the kidneys, on which depends our only ground of hope of removing the deleterious matters circulating in the blood. Where the convulsions occur after the period of viability, this treatment also affords the best chance of saving the life of the child, for it is generally admitted that, as a rule, death of the foetus occurs early in the attack.

While measures calculated to induce labor are practised, the convulsions should be controlled as far as possible by the use of ether, chloroform, chloral, veratrum viride, and similar agents. The action of the kidneys should be encouraged by the free administration of water by the mouth or rectum, and the renal function should be supplemented by free diaphoresis and catharsis.

In considering the treatment of these severe cases, one other point presents itself—what shall be done where the case is desperate, and where contractions of the uterus are not readily induced? It seems to me that where the effect of the poison on the system is profound, where the convulsions are violent and frequent, where the suppression of urine is practically complete, where there is no prospect of the rapid induction of labor, or where the efforts to bring on labor excite convulsions, the question of removal of the foetus by abdominal section should be seriously considered. Such a course would, in a few minutes, remove an important causative factor in the production of the disease, afford a better opportunity for the action of remedies intended to control the paroxysms, to stimulate the action of the kidney, and to favor the excretion of poisonous matters, and probably give, both to the mother and to the child, the best chance for life.

Discussion.—DR. REYNOLDS WILSON: I wish to say but a word, and that is with reference to the use of morphine in the treatment of puerperal convulsions. I recently had the opportunity of seeing a typical case of eclampsia treated in this way in the clinic of Prof. Winckle. The patient, a primipara, supposed to be at the eighth month, was admitted to the hospital in a delirious and semi-comatose condition at 9 P.M.; between this time and 4 A.M. she had four convulsions. She was treated with large doses of morphine by hypodermic injections. Chloroform was also used. When first admitted the os would admit two fingers. At 2 P.M. labor came on, the second stage lasting only half an hour. The child was living, and lived for thirty hours. Prof. Winckle advocates and practises the hypodermic injection of morphine in these cases, in doses of $\frac{1}{2}$ grain, repeated in from four to seven hours, and continued until 3 grains in all have been given.

DR. WILLIAM S. STEWART: I was much interested in the paper, and especially in the description of the treatment of this particular case. I, however, rather feel like taking exception to the suggestion made in the latter part of the paper, that is, in regard to the performance of abdominal section. I think that it is possible to control these convulsions by large doses of chloral, given at first by the rectum and afterward by the mouth, if that can be done. I have had a number of cases of puerperal convulsions, and have had no difficulty in controlling them since I have learned that a certain dose of chloral will control the convulsions for a specific time. One drachm of chloral injected into the rectum will control the convulsions for about one hour and a half, almost to the minute. At the end of that time I am prepared to

¹ *New York Medical Record*, January 3, 1891.

repeat the injection, if necessary. That quantity of chloral will control the convulsions in ten seconds. The effect of the injection is to produce profound sleep.

I have also experimented with the use of chloral in the albuminuria of the pregnant state. I had to remain in the city one entire summer, on account of one case where the family were so obstinate that they would not permit me to bring on premature labor when the child was viable. The patient was a primipara, with almost complete suppression of urine. The albumin was so abundant that the urine coagulated into an almost solid mass on boiling. I predicted convulsions, and insisted on bringing on labor; but to this the mother would not consent. I tried various remedies, with no effect upon the action of the kidneys. She began to have feelings of twitching, etc., and I put her on small doses of chloral. To my astonishment the albuminuria began to diminish, and the quantity of urine was increased. Her condition steadily improved, and I succeeded in getting her through without a convulsion.

In my first experience with puerperal convulsions, fifteen or twenty years ago, I used morphine by hypodermic injection; but when I recall the difficulty I had in bringing this patient through, and the severe injuries to the tongue, which did not heal for weeks, I consider this a poor method, although it is recommended by so high an authority as Winckle.

DR. WILLIAM H. WELCH: I do not propose to take up the time of the society; but I want to mention that not long ago I came across one of these cases. Chloral was employed very freely, and during the convulsions chloroform was administered, and delivery accomplished with the forceps as speedily as possible. In spite of all that could be done, the patient rapidly became comatose, and died. I think that in this case chloral was used as freely as was safe. This is an instance where chloral did not save the patient.

MEDICAL AND SURGICAL SOCIETY, OF BALTIMORE.

Stated Meeting held January 8, 1891.

THE Seven Hundred and Eighteenth Regular Meeting was called to order by the President, Dr. H. T. Rennolds. Dr. Arthur D. Mansfield was elected to membership.

DR. GEO. J. PRESTON read a paper on

THE DIFFERENTIAL DIAGNOSIS AND TREATMENT OF PERIPHERAL NEURITIS.

DR. F. C. BRESSLER said he had seen a few cases. The first case was that of a woman who was brought into the City Hospital in 1885. She was thought to be drunk at the time she was brought in. She had the wrist-drop and foot-drop; had pain in the ankle and along the tibia. The muscles were atrophied, and at the time a diagnosis of poliomyelitis in the adult was made. She stayed at the hospital for one month, when she was sent to Bay View. Another case, of Dr. Spicknall's, of a saleswoman, who, all at once, was attacked by wasting of the hands, arms, and shoulders. Under massage and strychnine she has recovered. In regard to children, he saw a girl of seven years who was attended by himself and Dr. Chambers for catarrhal pneumonia. She was getting

better, when suddenly the muscles of her hands and arms began to waste; she had pain in the course of the nerves; the tendon reflex was entirely gone. Under massage and strychnine she also recovered. These cases are hastily gone over to bring out the differential diagnosis between peripheral neuritis and poliomyelitis. Peripheral neuritis is comparatively a new subject; it was brought to the attention of American physicians by Dr. M. Allen Starr, of New York, in the Goldsmith lectures.

DR. J. W. CHAMBERS said peripheral neuritis is a more common disease than it is usually thought to be. He knew of two cases of attempted suicide by taking arsenic; they did not succeed in committing suicide, but they did succeed in getting a peripheral neuritis. The first case that came to his attention was six years ago. He called it poliomyelitis at the time. Since then, having learned more of the disease, when he saw a case about a year ago, he looked for and found peripheral neuritis. He thought that in a short time he would hear more of peripheral neuritis and less of poliomyelitis. He saw a case last winter, of a lady who had a retroflexed uterus, and who was pregnant. She had pains shooting down both legs, and he thought her hysterical at the time; she soon aborted. About six months after there was marked wasting of the lower extremities, and after awhile of the upper extremities also. She is much better now, and is filling up again. In peripheral neuritis there is not so marked a deformity from contraction of the muscles as in poliomyelitis; but in the case of a colored man at the City Hospital last winter, there was very marked deformity from muscular contraction. This brings us to the consideration of the value of a single symptom—so-called pathognomonic symptoms. It is said that the Argyle-Robinson pupil is pathognomonic in tabes dorsalis, but it has been observed in multiple neuritis. One pathognomonic sign is of no use unless associated with other signs, which must be taken into consideration with it.

DR. WM. H. NORRIS said he had seen several cases; one a remarkable case, six years ago, in a highly-educated lady of a very nervous disposition. She had been under his care for some time with chronic diarrhoea. She went to New Orleans for the winter, on his advice, and returned in the spring with malaria. About this time she became very nervous over some bonds which she owned. She was suddenly paralyzed, and suffered great pain. A diagnosis of multiple neuritis was made. She became much atrophied, and there was considerable muscular deformity. She died about three years ago. An idea of the degree of wasting may be formed from the fact that from one hundred and twenty-five pounds at the beginning of the attack, she was reduced to sixty-five pounds at the time of her death.

DR. G. J. PRESTON said the cases narrated go to confirm him in the opinion that peripheral neuritis is a more common disease than it is usually thought to be. It seems to be an American disease, as we do not hear much of it in Europe. This may be due to the pressure of our American civilization, or it may be because it is more closely observed, and, in consequence, is more frequently reported. Poliomyelitis will often recover, almost perfectly, and rapidly, even in cases where the paralysis is marked. It is probable, in these cases, that the large cells in the anterior horns may be affected (not destroyed) sufficiently to interfere with their functions.

DR. J. E. PRICHARD then read a paper on

THE USE OF SPLINTS IN FRACTURES OF THE LONG BONES, AND A CASE OF SOLUTION OF CONTINUITY OF THE LEFT HUMERUS AT THE SURGICAL NECK.

DR. W. S. BLAISDELL said the application of splints to fractures of long bones, as recommended by Dr. Prichard, could have but one objection to it, and that would be that a crutch paralysis might be induced by the pressure in the axilla.

J. WM. FUNCK, *Rec. Sec.*

1710 WEST FAYETTE STREET.

The Polyclinic.

PENNSYLVANIA HOSPITAL.

LONGSTRETH does not approve of milk toast, as the milk prevents the action of the saliva on the starch of the bread. He objects to it particularly as a food for convalescent "typhoids," whose secretions, especially saliva, are markedly diminished. For such cases he thinks hard-boiled eggs the best food, that is, when they are boiled long enough to make the yolk mealy. To induce appetite in patients who loath food, he recommends some delicacy of which they are particularly fond. This stimulates the glands of the alimentary tract, whose secretions are essential to proper digestion.

COOPER HOSPITAL NOTES.

THE FEMALE SILVER CATHETER.

THE female silver catheter should not, as a rule, be used, because of its liability to irritate, if not to cause an abrasion and consequent inflammation of the lining membrane of the urethra; specially is this true, if after parturition the urethra has been congested from pressure of the foetal head. The use of the soft rubber catheter will prove far more satisfactory.—*Godfrey.*

THE TREATMENT OF COMPOUND FRACTURES.

Thorough antisepsis in the treatment of a compound fracture will often save a limb that under the older method of treatment would have been amputated. To be effective, however, antiseptic treatment must be thorough. Its application in this form of an injury affords the highest evidence of its value.—*Benjamin.*

ANTISEPSIS IN TYPHOID FEVER.

Early and persistent antisepsis of the alimentary canal in the treatment of typhoid fever will give the best results, and can be best accomplished by the use of the sub-iodide of bismuth.—*Davis.*

FRACTURE OF SURGICAL NECK OF HUMERUS.

The use of an internal splint for the humerus, in addition to a shoulder-cap splint, insures in the treatment of fracture of the surgical neck greater comfort and a better result than when the shoulder-cap splint is alone applied.—*Strock.*

MEDICO-CHIRURGICAL COLLEGE.

IN the treatment of bronchial catarrh, avoid polypharmacy. Do not combine indiscriminately the various expectorants. There is no excuse for practising the "hit or miss" method in the treat-

ment of such cases. Stimulating and sedative expectorants are frequently so injudiciously prescribed as to have no more effect than so much water. Always ascertain for yourself the condition of the bronchial mucous membrane, *i. e.*, whether it is in a state of hyperæsthesia or anæsthesia, and prescribe accordingly.—*Waugh.*

For checking hemorrhage from the lungs there is no better remedy than digitalis, in gtt. x-gtt. xx dose, given in hot water, to promote rapid absorption. It is better than ergot in being more lasting in its effects. The degree of damage which the exuded blood gives rise to will be determined by the fever that ensues. To slow the action of the heart give aconite in 1-drop doses, in hot water, every twenty minutes.—*Waugh.*

In a case of ecthyma Shoemaker prescribed:

R.—Aloini gr. ij.
Tr. ferri chlor.,
Glycerini āā f ʒij.
M.—S. ʒj t. i. d.

During a severe case of typhoid fever Waugh believes that there is a loss of a certain amount of vital force, and that practically a part of the patient absolutely dies. He has been led to this belief in observing the career of his patients after recovery from severe attacks of typhoid fever. He has found that they rarely possess the same working power they had previous to the attack. In some cases he has seen a marked aberration of the mind.

Goodman's treatment of inherited syphilis in children consists of massage and inunctions of cod-liver oil or sweet oil. Internally he gives a combination of the bichloride of mercury, arsenic, and iron, with the syrup of orange flower.

The principal element in the prognosis of diphtheria is to be found in the attending physician. If he is a believer in the strictly local nature of the disease, and in the importance of efficient and early local treatment, the chances of recovery are good. The essential elements in the successful treatment of diphtheria are: The applications should be strong enough to destroy the disease; they should be so frequently applied that the disease has not time to recover its lost ground. Ordinarily, an application every hour will answer; but in some cases it should be made every fifteen minutes. Herein lies the reason that one practitioner fails with a remedy that another finds efficacious.—*Waugh.*

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Reported by J. E. TAYLOR, M.D.

PROF. PARVIN in treating infantile leucorrhœa, directed that the cause of the trouble be sought for and removed. Wash the parts thoroughly, and use astringent injections, or a suppository of the following:

R.—Iodoformi gr. v.
Olei theobromæ gr. x.

Prof. Keen at a recent clinic presented rather a rare case: The patient, a girl, aged five years, had a tumor situated on the back over the lumbo-sacral region. The tumor, which was fatty and of very large size, was removed by making an elliptical incision and dissecting it out. The tumor communicated with the spinal cord by means of a sac, and when opened into this was followed by a copious discharge

of cerebro-spinal fluid. The edges of sac were carefully approximated and the wound dressed in the ordinary way.

Prof. Parvin in lecturing to the class on flexions of the uterus, gave as a general law that antelexions are rare in the nullipara, retroflexions are rare in those who have borne children.

Dr. J. C. Wilson presented a case at the clinic with the following history: The patient came for the relief of a severe pain in the left side, in the region of the lower ribs. It came on suddenly after lifting a heavy weight; is much worse at night. The patient otherwise was feeling well. A diagnosis of lumbago was made. The patient was ordered a teaspoonful of the elixir of quinine, iron and strychnine three times a day, with hypodermics of morphine, gr. $\frac{1}{8}$, and atropine, gr. $\frac{1}{60}$.

Prof. Keen gave the following formula, to be used as an injection in gonorrhœa:

R.—Zinci sulphat. gr. xviii.
Catechu.
Matico. āā f3 iss.
Glycerini.
Aqua. āā q. s. ad f3vi.

M.—S. Inject f3ss, retaining each injection for at least five minutes.

In case of a woman, aged fifty-six, presenting these symptoms: menstruation has ceased, disordered digestion, obstinate constipation, loss of appetite, at times vomiting, a great deal of wind is constantly eructated, tongue flabby, pain in the back and left side, coming in paroxysms, and attended with great suffering; a diagnosis was made of *enteralgia*. She was treated as follows: For the pain, phenacetine, gr. ij., and—

R.—Ext. cascarae sagradae. mxx-xx.
Mist. glycyrrh. comp. f3j.

M.—S. At bedtime.

R.—Quininæ sulph. gr. ij.
Ext. cannabis Indicae. gr $\frac{1}{8}$.

M.—Ft. in pil.
S. After meals.

Prof. Keen in lecturing to the class upon fractures, gave the following differential diagnosis between fracture and dislocation of the neck of the femur.

FRACTURE OF THE NECK.	DISLOCATION.
1. Usually in old persons.	1. Generally adult, middle life.
2. Women as a rule.	2. Either sex (usually men).
3. Slight force.	3. Severe force.
4. Toes everted.	4. Toes inverted (generally).
5. Shortening.	5. Shortening.
6. If restored, displacement recurs.	6. When restored displacement does not occur.
7. Preternatural mobility (passive).	7. Preternatural immobility.
8. Crepitus.	8. Crepitus absent.
9. Slight prominence of the great trochanter.	9. Great prominence of the trochanter.

Also the following as a differential diagnosis between intra and extra-capsular fractures of the femur:

INTRA-CAPSULAR.	EXTRA-CAPSULAR.
1. Slight injury.	1. Severe injury.
2. Slight contusion.	2. Usually severe contusion.
3. Shortening increases.	3. Does not increase.
4. Feeble crepitus.	4. Distinct crepitus.
5. Leg nearly helpless.	5. Absolutely so.
6. Shorter radius of rotation.	6. Still shorter radius of rotation.
7. Pain moderate.	7. Pain severe.
8. Usually occurs in persons over fifty years of age.	8. Usually occurs in persons under fifty years.
9. In women as a rule.	9. Generally occurring in men.

Dr. Lewis Brinton presented to the class a case of fatty degeneration of the heart. The patient gave this history: He had had rheumatism, pain in the precordial region, shortness of breath on exertion, vertigo, and at times specks floating before the eyes, a very feeble, compressible pulse, the vessels showing the changes of beginning atheroma. The patient was placed upon sulphate of strychnine, a sixtieth of a grain three times a day.

In the case of a child seven months old presenting the following symptoms: The food taken passed by the bowels undigested; there was obstinate constipation; the patient also had an eczematous rash upon the face; Dr. Rex prescribed the following treatment:

R.—Resinae podophylli. gr. j.
Alcoholis. f3j.
Aqua. f3ij.

M.—S. In drop doses.

For the eczema of the face:

R.—Acid. salicylici. gr. x.
Adipis. f3j.

M.—S. Apply locally.

For a case of pharyngitis complicated with bronchitis, Dr. Brinton gave the following formula:

R.—Ammonii chloridi. gr. v.
Vini antimonii. gtt. x.
Vini ipecacuanhae. gtt. x.
Mist. glycyrrhizae comp. f3j.

M.—S. Every three or four hours.

SURGICAL TREATMENT OF GRANULAR CONJUNCTIVITIS.—Darier (*Recueil d'Ophthalmologie*) says that most of the methods employed to cure granular conjunctivitis are ultimately successful, but the time occupied in the cure is usually very long, and in many cases the cure is only temporary. This method of treatment is based upon the opinion that the trachomococcus, which has been found and described by Sattler and Michel, is the pathogenic agent in granular conjunctivitis. This trachomococcus should be entirely removed, and this can only be done effectually by surgical methods. He divides the operation into six steps:

1. Anæsthesia by chloroform.
2. Enlargement of the palpebral fissure.
3. Complete eversion of the eyelids, so that the whole of the conjunctival surface may be exposed.
4. Scarification of the conjunctiva, the cuts being deep, and in parallel lines to the edge of the eyelid.
5. Scraping with a Volkmann's spoon.
6. Thorough brushing and washing with a solution of perchloride of mercury (1 to 500), the whole of the scarified surface being brushed with a hard brush.

He has found this method very effectual, most of the cases treated being cured in about eight days, without the supervision of keratitis or ulcers in the cornea.—*Brit. Med. Jour.*

One of the most celebrated restaurateurs in Germany has just passed through the Bankruptcy Court, and it was discovered that among the creditors was a knacker, to whom nearly \$5,000 was owing for carcasses of horses and asses. The debtor was sharply interrogated respecting this item, and he ultimately confessed that his customers had unconsciously devoured all these thousands of carcasses, being there and then under the delusion that they were eating venison.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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New York and Philadelphia, March 21, 1891.

DR. WILLIAM F. WAUGH has resigned the chair of Practice and Clinical Medicine in the Medico-Chirurgical College, of Philadelphia, to take effect at the end of the present term. Dr. Waugh has been a member of this Faculty since the college first opened its doors as a teaching institution in 1881. During the first term he gave the course on Therapeutics, and was then transferred to the chair of Practice, which he has since occupied.

ST. CLEMENT'S HOSPITAL.

THE annual report of this institution lies before us. At the time it was founded, we were informed that the object was to afford a refuge for those cases that were considered undesirable at other hospitals; and were refused admission, or discharged to make room for others. These were the chronic incurables, who filled up the wards, and, themselves incapable of receiving any permanent benefit, occupied the places of others who might be cured.

This truly laudable object alone gave St. Clement's Hospital a reason for existence; for in no other sense could it be said to fill a "long felt want." If any one will take a map of the city he will see that the district surrounding St. Clement's is fully provided for, as regards free medical attendance. Beginning on the north we find the German Hospital, the Gynecean, Charity Hospital, the Medico-Chirurgical, Wills', Jefferson, the Lying-in Charity, Children's, the Pennsylvania, Howard, the Polyclinic, the Eye and Ear Department at Thirteenth and Chestnut, and now the new Methodist Hospital, all within easy reach; while across the river the University and Presbyterian are not inaccessible to any part of the parish. Nearly all these institutions have well-equipped dispensaries, with full corps of able clinicians; so that without the advent of St. Clement's, there was an actual competition among them for patients. But this new comer has stepped in, and during the last year has managed to run up a list of 16,535 cases treated at the dispensary.

How much farther is this thing going? Where are the physicians of Philadelphia to look for their living, when the dispensaries crowd each other in a competition for the privilege of attending the sick free of charge? In the case of teaching institutions there is a valid excuse, in that it is necessary to have a supply of clinical material for the education of students. For the really poor, also, there should be ample provision. But St. Clement's is not a college, and we are credibly informed that not even the pretence of an inquiry is made into the true financial standing of those who apply for help. Meanwhile several of the physicians of the neighborhood inform us that their work has been seriously cut into by this institution.

Now let us see how far the original idea of the hospital has been carried out: that of a refuge for the chronic incurables. The only reference in this report to cases treated in the wards is as follows:

CASES TREATED IN WOMAN'S WARD OF HOSPITAL FROM JUNE 6, 1890, TO NOVEMBER 1, 1890.

	Number of Cases.
Aortic Regurgitation,	1
Cancer of Pylorus and Pancreas,	1
Eczema of Leg,	1
Hemiplegia,	1
Intracapsular Fracture	1
Lacerated Cervix,	5
" " and Perineum,	1
" Perineum,	1
Potts' Disease,	1
Rheumatoid Arthritis,	1
Scirrhus of Breast,	1
	15

How many of these are "chronic incurables?"

From the Treasurer's report we learn that the running expenses, deducting \$12,756.17 for alterations and additions to the building, amount to \$4,771.48. We are given no data as to how long each of the fifteen patients remained in the hospital, but at the end of the year there were six remaining; and if this represents the average, the yearly cost of supporting each patient was \$795.24, or over \$15.00 per week. How much more benefit would have resulted if the \$37,447 received during last year by this hospital had been added to the endowment of the Episcopal Hospital, a noble institution, under the care of the same religious denomination. Seven beds could have been endowed in perpetuity, with nearly half the sum necessary for the eighth. As it is, St. Clement's Dispensary is taking away from the neighboring physicians their means of livelihood; seriously interfering with the teaching institutions in their efforts to obtain material for clinical demonstration, and pauperizing the people, with the funds subscribed for the erection of an asylum for incurables. We sincerely hope that if the fathers return to England they will take their hospital with them.

DR. A. E. ROUSSEL has been elected to fill a vacancy on the visiting staff of Howard Hospital.

REMOVAL OF THE "JOURNAL," TO WASHINGTON.

THIS subject has been pretty thoroughly discussed from one point of view, namely, whether the interests of the *Journal* and the needs of its readers will be subserved by the proposed change. The argument stands about as follows: Drs. A., B. and C. believe the journal should be removed to Washington, because they wish it; whereas Drs. X., Y. and Z. desire it to remain in Chicago, because *their* interests demand it. Which of these parties succeeds in fortifying this principal argument by the strongest accessories in the shape of votes, will be shown at the coming meeting of the Association.

But there is another aspect of the case, which has not, we believe, received any attention. How will the removal affect the interests of Chicago?

To the present resident staff of the *Journal* this would seem a matter of course, as it would seriously incommode them to be compelled to remove to Washington. They form but a small element in the Chicago profession, however, and when we eliminate the question of personal interest, we cannot come to any other conclusion but that the removal would be a good thing for Chicago.

The *Journal* is not, and must not be, in any sense a local journal. It is national; and any attempt to make it a representative of Chicago medicine would be met with a howl of reprobation from all quarters. And yet, as the only professional journal published in that city, it blocks the way for what Chicago needs, a strong and well-supported weekly medical journal. Chicago is now the second city in this continent. Its business interests are even greater than its population, proportionately. Its physicians number over 2,000; active, progressive and cultured men. But in medical journalism it is represented by three monthlies, published by two manufacturing drug firms and one surgical instrument house. Very good journals they are, and very well edited; but is it not a disgrace that the medical profession of that city has no journal of its own, but is contented to take its literature from such sources?

If the *Journal of the American Medical Association* were to remove to Washington, there would be an opportunity for Chicago's warring cliques to unite in the production of a good medical weekly that would worthily represent the profession of that city.

Annotations.

DETECTION OF TUBERCLE IN SPUTUM.

DR. WEBER, of Berlin, sends the following to Dr. Dixon as the method adopted in the Charité Hospital, Berlin, for the detection of tubercle bacilli in sputum:

Where there is reason to believe that bacilli are present in sputum, but in very small numbers and not easy of detection by the ordinary methods, as is very often the case, the following plan has been successfully employed:

Take the whole quantity of sputum of two days, or even up to a week; add to it twice the quantity of

distilled water, and to this add eight to fifteen drops of concentrated liquor potassæ. Heat slowly until the whole mass has the consistency of thick syrup. The cellular and morphological contents will be dissolved except elastic fibre.

The necessary heat must remain below 212° F. The longer you allow a lower degree of heat to act on the solution, the better the bacilli afterwards take on the carbol fuchsin stain.

After heating the thick syrupy solution, add eight to fifteen parts distilled water in a beaker, when quite a precipitate falls to the bottom.

In this way any bacilli that were in the sputum can be most readily detected.

EFFECTS OF HIGH ALTITUDES ON THE BLOOD.

A PAPER was read by Muntz before the Paris Biological Society, in which he affirms that the blood undergoes changes in those who live on the table-lands of mountainous regions. The blood adapts itself to the peculiarities of the atmosphere. The density of the blood is increased, and with it the amount of solids, of hemoglobine, and of respiratory capacity. The author had made his experiments on rabbits and sheep which were found in the peak Du Midi. Dr. Viault concurs with Dr. Muntz, and has noticed in himself, and several persons who were associated with him, a considerable increase in the number of red globules. Man adapts himself very readily to life in high altitudes, where the air is rarefied. The local troubles of hematosis are compensated for by active hematopœsis. This would explain the curative action of elevated regions on pulmonary phthisis. It also affords a valuable indication for the selection of a locality for invalids. Plethoric persons should go to the sea-shore, where the salt air will tend to reduce their blood to a proper consistence; while anæmic individuals should take to the hills. For some years we have been sending patients with anæmia to Bedford, Cresson, and other places in the mountain region of Pennsylvania, with the best results. There are numerous localities in the Alleghenies where living is fabulously cheap, and the conditions much more suitable for debilitated persons than the more expensive sea-side resorts.

ASYLUM CONFLAGRATIONS.

THE destruction of the Central Tennessee Insane Asylum by fire, with the loss of nine lives, serves again to emphasize the great danger of incendiarism in such institutions. The majority of the inmates of asylums for the insane are possessed by the desire to get out, to get home, to be free; and this often comes to be the one engrossing idea of their minds. Many of them would not hesitate a moment to set fire to the building if they had the opportunity, in order to secure their release during the confusion; while not a few have ingenuity enough to devise plans for accomplishing this purpose. Twenty years ago careful managers insisted on the exclusive use of safety matches, and carefully destroyed the boxes when new ones were issued. But these matches ignite pretty well upon glass. Nowadays, the electric light should be the only illuminant allowed in an asylum; and many are thus fitted out with the best and safest of lights.

But the greatest danger is one that can scarcely be obviated—that arising from the selfishness of the smoker. The attendants will manage to smoke,

rules to the contrary notwithstanding. In the British Navy, it was found simply impossible to prevent smoking; and the rules against it had to be rescinded, because the men would smoke, and when in danger of detection would hide their short pipes away in any nook or cranny, to the very great danger of setting the vessel on fire. Yet this risk they would run rather than submit to detection and punishment, and relying, perhaps, on the proverbial "luck of the British army," afloat or ashore.

Letters to the Editor.

TREATMENT OF NASAL CATARRH.

AS a result of my observation on the action of different drugs in nasal catarrh, I have found the following composition, which I have used in many cases, to be of great benefit, and to which I call the attention:

R.—Salis nitrici cubici,
Pulvis camphoræ triti āā 3j.
Sacchari albi 3 semis. }
M. et pulv. subtilissimus ad scatula.
S. As directed.

If the nose of the patient is in such a state that he is unable to draw in the powder, I use an insufflator, by means of which a small amount of the powder is blown into both nostrils. After the first dose the patient usually finds himself enabled to breathe through the nose, and feels a little better (there is an itching for a few seconds). The secretions usually cease after awhile altogether. Repeat the dose in fifteen minutes by snuffing. The inflammatory condition diminishes, and all the symptoms of the disagreeable disease weaken, and after repeated doses of this powder—say every fifteen or twenty minutes—the patient gets well in three to four hours. I have tried this remedy with success upon my own person many times. In complications such as swollen nose, pain in the throat and chest, cough, and slight fever, this remedy acted almost magically in combination with the following: Drink species pectoralis, apply fat to the nose, take a foot-bath, use a slight solution of tannin as a gargle.

The patient feels himself again on the next day. Such a quick relief I never accomplished; neither by means of calomel, according to Trouseau, nor pulvis cubearum, according to Spitt; not even by ½-grain of morphine, according to Schneider. The powder used must be fresh, and kept in a paper box.
S. SEILIKOVITCH.

338 SPRUCE STREET.

ERYSIPELAS.

IN your issue of the 21st ult. I noticed an article entitled "Pirogoff on Treatment of Erysipelas," in which is recommended the internal administration of camphor. Among other things he says: "Of all internal remedies camphor is the most efficacious."

I have never employed this remedy internally in this disease, but for the past few years have regarded it as a reliable, if not *specific*, therapeutic agent in its local treatment.

Since beginning its use I have constantly employed it in all cases of facial or simple cutaneous erysipelas with the most gratifying results. I usually employ a saturated solution of camphor and tannin in sulph. ether:

R.—Acid. tannic gr. xlv.
Camphor 3iiss.
Etheris sul. 3ij.

M.—Sig. Apply by means of a camel's-hair pencil every three or four hours, until a white, impervious coat is formed.

After this I apply it at sufficient intervals only, to keep this coating intact until the disease is completely under control, which is evidenced by a return of temperature to normal, arrest of its progress, and disappearance of the oedema of the affected parts.

If these cases are seen early, before the involvement of much integument and the development of much constitutional disturbance, a few applications *invariably* cut short the disease. If much constitutional disturbance has already developed, as is often the case, before we are called, I usually administer aconite internally, and mild cathartics if constipation exists. If there is much anæmia, I sometimes follow this with the tinct. ferri chloridum.

I have been able to control the disease in *all* of my cases thus treated in from one to six days, according to the severity of the attack and extent of the local inflammatory trouble, and I have always regarded the local application the principal (and often the only) agent in bringing about this speedy resolution. I have had the opportunity to test this local treatment in but one case of *erysipelas neonatorum*, which developed in a child within a few hours after its birth, and seen by me within a few hours after its commencement.

It had already involved the whole of the face and scalp when I, in a state of hopeless despair, directed the paint to be applied every three hours, and made an appointment for the following morning. Upon my arrival I found head still almost twice its normal size, eyes tightly closed from the oedema, great constitutional disturbance, and erysipelatous inflammation extended down, involving the whole of the neck. Continued same application, and, upon the third day, disease was under control and patient discharged convalescent.

I look upon the remedy as almost a *specific* in this disease, and, with the happy results of past experience, shall, with increasing confidence, investigate the merits of the claims of that distinguished surgeon.

W. H. NUDING, M.D.

BOTKINS, O.

CAUSE OF COLD NOSE.

FOR nearly five years I have been much interested in a question to which nowhere in the medical literature can I find the answer. Accidentally I found the same question on the pages of the *Medical World* for February, 1891. But as I am not sure if this question was answered, I would be very glad to have it answered in your journal, especially as I am myself personally interested in it. The question is this: What is the cause of a person having a cold nose, the nose being almost as cold as an icicle? As to my own case, I can say in addition, that besides my nose always being cold, the presence of onion always excites profound perspiration of that organ, which is not the case in the presence of any other irritant.

S. SEILIKOVITCH.

338 SPRUCE STREET.

[Coldness of the nose is a symptom of deficient circulation. If the toes and fingers are also cold, the heart is probably at fault; if the nose alone suffers, there is a local obstruction to the access or outflow of blood. Such local impediments are sometimes caused by frost-bite, which gives rise to some disturbance in

the circulation by which the part becomes easily chilled and difficult to keep warm. Atheroma may be ranked as the cause next in frequency. Other local anomalies may cause the coldness, to be discovered on examination. As to the action of onion, the explanation following may appear fanciful, but perhaps our readers will suggest a better: If the odor of onion stimulates the Schneiderian membrane, there is a momentary afflux of blood to the nose—*ubi irritatio, ibi affluxus*—and if there is already a difficulty in the return circulation, the congestion is relieved by the exudation of serum. But why the same effect does not follow the application of other and more powerful irritants is "one of the things no fellow can find out."

Book Notices.

ESSENTIALS OF SURGERY. By EDWARD MARTIN, M.D. Illustrated. Fourth Edition, revised and enlarged. Philadelphia: W. B. Saunders, 1891. Cloth, 12mo, pp. 334.

Included in this volume are full directions for bandaging, and for the preparation and use of antiseptics in surgery, together with several hundred prescriptions used in treating surgical cases.

DIABETES. Its Causes, Symptoms, and Treatment. By CHARLES W. PURDY, M.D. With clinical illustrations. F. A. Davis, Philadelphia and London, 1890. Cloth, pp. 184. Price, \$1.25.

Although diabetes is not a very common disease in America, some parts of this country furnish enough cases to make an American book on the subject of considerable interest. New England appears especially prone to diabetes; Vermont excelling in that respect, as the ratio of diabetic deaths to the total mortality is as 6.30 to 1,000. Alabama gives the smallest ratio, .55 to 1,000. Dr. Purdy concludes that cold and altitude are the chief causative factors. Whether the production of maple sugar in Vermont has any influence he does not state. We have seen it recommended as a remedy.

THE DAUGHTER. Her Health, Education, and Wedlock. By WILLIAM M. CAPP, M.D. F. A. Davis, publisher, Philadelphia and London, 1891. Cloth, pp. 144. Price, \$1.00.

There comes a time in the young woman's life when she realizes the imperfections of her training and education. When the responsibilities of wifehood and maternity confront her, she learns that music and dancing, French and lawn-tennis still leave a little to be learned before she is fitted for the duties of life. Fortunate is she, then, if a wise mother or friend is at hand to initiate her, and the traditions thus transmitted, with the natural intelligence of the sex, enable them to get through their difficulties "somehow." It is to supplement this imperfect method by giving a solid substratum of elementary facts upon which to build that Dr. Capp's book has been written. It is intended for the non-professional public, and everything is put in language so plain that comprehension cannot fail with any reader. The questions relating to puberty and its dangers are handled so delicately that no one need fear to place this chapter in the hands of a daughter. We have not met with any book on this subject that accomplishes its objects as well as this of Dr. Capp's. We advise our readers to obtain it, and to recommend it to their patients who have daughters growing into womanhood.

Pamphlets.

The Caesarean Section from the Standpoint of Relative Indication. Report of two cases. By Egbert H. Grandin, M.D., New York.

Suppurating Endothelioma—Myofibroma in a Condition of Necrobiosis—Remarks on the Treatment of the Pedicle, etc. By Mary A. Dixon-Jones, M.D., Brooklyn, N. Y. Reprinted from the *Medical Record*, September 6, 1890.

Atypic Herpes Zoster Gangrenosa, with Report of Two Cases. By Benj. Merrill Ricketts, Ph.B., M.D. Reprinted from the *Journal of the American Medical Association*, November 29, 1890.

Neuer Beitrag zur Ichthyolbehandlung bei Frauenkrankheiten. Von Dr. Herrmann W. Freund. Separat-Abdr. aus *Berliner Klin. Wochenschrift*, 1890, No. 45.

Zur Ichthyolbehandlung von Frauenkrankheiten. Von Dr. Reitmann und Dr. Schöner. Sonderabdruck aus der *Wiener Klinischen Wochenschrift*.

Ueber die Anwendung des Ichthyols bei Frauenkrankheiten. Von Dr. H. W. Freund, I. Assistent. Sonderabdruck der *Berliner Klinischen Wochenschrift*, No. 11, 1890.

A Case of Intracranial Neoplasm with Localizing Eye Symptoms; Position of Tumor Verified at Autopsy. By Charles A. Oliver, M.D., of Philadelphia. Reprinted from the *Archives of Ophthalmology*, Vol. xx, No. 1, 1891.

Kurzer Beitrag zur Ichthyoltherapie bei Frauenkrankheiten. Von Dr. Kötschau, in Köln. Sonderabdruck aus *Münchener Medicinische Wochenschrift*.

Mittheilungen aus dem Garnisonskrankenhaus. Von Chr. Ulrich, Reservearzt. Sonderabdruck aus *Hospitals-Tidende*.

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De l'Ichthyol Dans le Traitement de la Dyspepsie et des troubles céphaliques et nerveux qui en dépendent. Par A. Stocquart. Extrait des *Archives de Médecine et de Chirurgie pratiques de Bruxelles*.

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Bullock's Blood in Therapeutics. By F. E. Stewart, M.D., Ph.G.

Ichthyol and its use in Medicine and Surgery. By A. Müller, M.D., of Yackandandah, Victoria. Reprinted from the *Australian Medical Gazette*.

The Radical Operation on Hernia. By B. Merrill Ricketts, Ph.B., M.D.

The Rational Treatment of Uterine Displacements, Based upon a Consideration of the Pathological Conditions Present. By Augustin H. Golet, M.D., New York. Reprinted from the *American Journal of Obstetrics*.

The Medical Digest.

APOCODEINE.—In six cases I have used apocodeine by mouth as an expectorant with satisfactory results. The first patient was seventy-years of age, and had long been under treatment. On September 24 he was ordered 10 minims of a 1 per cent. solution three times a day; on October 1 the dose was increased to 20 minims three times a day; on October 9 to 25 minims; and on October 29 to half a drachm. He expected very freely indeed, especially after the larger doses, but there was no complaint of nausea or vomiting. In the case of another patient, aged seventy-one, the dose was gradually increased from 10 minims to half a drachm three times a day, and again it answered well as an expectorant, and produced no disagreeable symptoms. This patient in six weeks took 28 grains of apocodeine. In one case, and one only, the apocodeine produced nausea and vomiting. The patient was a boy, aged seventeen, an artist's model, who suffered from neurotic asthma. From April 23

to June 25 he was on apomorphine, the dose being gradually increased from 15 to 50 minims three times a day. During this period he took nearly a drachm of the hydrochlorate of apomorphine, not only without the production of any unpleasant symptoms, but with marked relief to his attacks of dyspnoea. On July 16 he was ordered 5 minims of the 1 per cent. solution of apocodeine three times a day, the dose being week by week increased by 5 minims at a dose. There was no complaint until, on October 1, the patient was ordered 20 minims three times a day. He then stated that it made him feel sick, and that he was "unable to keep it down." He took twelve doses, and usually vomited about two hours after each dose. On October 8 the dose was reduced to 15 minims three times a day, which he took without difficulty. On October 15 the dose was again increased to 20 minims three times a day, and this he took for a fortnight without suffering from vomiting, although he admitted that he usually felt sick after each dose. He took in all 24 grains of apocodeine.

The hydrochlorate of apocodeine acts as a powerful expectorant when given in the form of pill. From 3 to 4 grains may be administered daily with perfect safety.—Murrell, *Brit. Med. Jour.*

PHENACETINE IN SCIATICA.—Sciatica is not only one of those affections which are extremely annoying and painful to the patient, but on account of its persistency often greatly tries the patience of the physician. At the clinic of Prof. Landon Carter Gray most benefit has perhaps been obtained from phenacetine, given, say, in tablets of four to eight grains every three or four hours. There are a good many cases, however, which do not respond to it very markedly. Doubtless, too, there are many cases of sciatica neuritis, rheumatism, gout, etc., in which a diagnosis of sciatica is erroneously made; but perhaps more frequently sciatica is mistaken for one of these affections.—*Practice.*

EARLY in the days when acetanilide was first introduced, some prominence was given to its antiseptic properties, but in the crowd of substances specially introduced as members of the "antiseptics," this field of usefulness for it was forgotten. Quite recently its virtues in this direction have been accentuated by the descriptions of its use instead of iodoform in the treatment of hard and soft venereal sores. The chancre is simply dusted with the powdered compound, and the result is said to be a rapid and complete healing. The advantages of the odorless and non-toxic acetanilide over iodoform need no emphasis; while for hospitals and dispensaries its cheapness would further recommend it if increased observation confirm these statements.

—*Provincial Med. Jour.*

TRICHLORACETIC ACID.—I. Trichloroacetic acid compares favorably with other caustics in hypertrophic conditions of the throat and nose, and is a valuable addition to the remedies now in use.

2. In the greatest majority of cases it is sufficient to produce the desired reduction of tissue, although it does not supersede the galvano-cautery.

3. It can be applied with safety to the larynx without any evil consequences.

4. Its chief advantage in nasal affections is the dryness of its eschar, which prevents unpleasant sequelæ, and makes after-treatment unnecessary.

—Gleitzmann, *Med. Record.*

TO STOP NOSE BLEED.—Dr. W. T. Lusk, of Bellevue, told the class the other day that about twenty years ago he was in the office of a country practitioner when a man came in with the nose bleed. Instead of being greatly disconcerted or excited about the matter and hurrying about to find means with which to plug the posterior nares, he quietly walked over to a desk, took out a clothes-pin, pushed it down over the cartilaginous part of the man's nose, and went about his other duties. After perhaps ten minutes the clothes-pin was removed and the epistaxis did not return. Dr. Lusk stated that this might not seem a very artistic or scientific procedure, but he had been looking for a case the past twenty years in which it would not succeed in checking the nasal hemorrhage. Moreover, it was by no means as uncomfortable as the use of a coagulating salt or a posterior plug. The fingers would answer as well as a clothes-pin, but the nose should be grasped from above downward, not simply clasp the alæ between the thumb and finger.—*Practice.*

CHOREA.—The physician is often at his wits' end to find some efficient remedy for chorea. Tilden claimed to have obtained great benefit by throwing a spray of ether for five or ten minutes along the spine, at the same time keeping up nerve nutrition by appropriate food and exercise. Clark, surgeon-in-chief of the police department in Newark, N. J., reported some time since in the *Times* an exceedingly aggravated case of chorea treated with entire success by antipyrine. Acting upon the hint, we have recently controlled in children from five to ten years of age serious forms of chorea with 5-grain doses of antipyrine, at first every four hours, and, as the condition improved, three times a day. Very likely there are conditions of the system which would prevent the curative action of the drug, but in these cases it was certainly very effective, acting as a positive curative agent. That this drug is something more than an antipyretic and antispasmodic is seen in its action in renal spasm, the result of calculi, in which it not only controls the spasms, but, continued in 5-grain doses for several days, causes the uric acid and the sand to disappear from the urine.

—*N. Y. Med. Times.*

RESPONSIBILITY IN APPENDICITIS.—I. The care of cases of appendicitis, so far as the physician is concerned, consists in his early and prompt recognition of the case. Abdominal surgery has now advanced to a point, and reached such a degree of success, by the application of methods of diagnosis by exclusion, that the physician is able to narrow down the possible condition of his patient to such a point, that sharing the anxieties of the case with the operative surgeon becomes an imperative and immediate necessity.

2. When called, the responsibility rests largely with the surgeon, to further aid or decide as to diagnosis, and as to the necessity of immediate operation. If it is once decided to operate, then the *technique* of the operation, and the care of the case for a certain period, devolves entirely upon the operating surgeon. It must be remembered that these cases often occur among a class of people where the anxiety is of the greatest, therefore, the physician and surgeon should join efforts early in the case.

3. At no time after the surgeon is called in and operates, should the physician and he be separated in their care of the case. The watching of the wound rests with the surgeon. Should he be in doubt as to

the necessity of an operation, he may be impressed more positively in the direction of the necessity of doing it later, if he sees the patient again at the end of twelve or twenty-four hours, or more or less frequently.

4. That the physician has yet much to grasp in the recognition of these cases as cases of great anxiety, there can be no doubt.

5. I am convinced that there is a great duty resting with operative surgeons in endeavoring to classify cases of abdominal surgery in such a way as will make it clearer to students and practising physicians to recognize these cases, and then to endeavor to bring before the older members of the profession an array of statistics, a percentage of recoveries, that will impress them with the importance of prompt operation in these cases.

6. The mutual care of these cases must consist in a greater, closer watching of early symptoms by the physician, and of a greater degree of confidence in the skill of operating surgeons. The care of these cases, as between physician and surgeon, must be brought to that plane where we shall meet with fewer cases of septic condition when operating, and where the symptoms of collapse, such as cold hands and feet, husky voice, sub-normal temperature, and like conditions, have not been reached.

—Vanderveer, *Med. Age*.

A SIMPLE TREATMENT OF CORNEAL ULCERS.—M. Valude, one of the ophthalmic surgeons of the Quinze-Vingts Eye Hospital, communicated to the Académie de Médecine, on February 10, a new method of treating those troublesome cases—ulcers of the cornea—so simple in its application, and, according to its inventor, so successful in its results, that it cannot fail to be generally adopted. Hitherto corneal ulcers complicated with hypopyon have been treated by puncture either by the knife or thermocautery, this operation having frequently to be repeated, and too often leaving behind it opacities, if not actual staphyloma. For this unsatisfactory method M. Valude substitutes a simple dressing, consisting of a pad of salol gauze, which, with a moistened gauze bandage, effectually seals the eye and maintains a certain amount of compression. Before being applied the eye is carefully disinfected. The dressing is not renewed until after three or four days have elapsed, when the ulcer is found to be already healing, and the collection of pus in the anterior chamber much diminished. M. Valude states that the cornea tends to regain its original transparency without any opacities. In corneal ulcers uncomplicated by hypopyon M. Valude, relying on his experience of fifteen successful cases, asserts that this new treatment is *the treatment par excellence*.—*Lancet*.

NEW APPARATUS FOR FRACTURED CLAVICLE.—The appliance consists of a curved crutchhead of wood or metal, passing well up in front of the shoulder, supported by a round extension bar of steel, attached at its lower end to a curved steel plate on waist-band by a pivot-joint. The proper elevation of the shoulder is maintained by this extension bar and a suspensory strap passing over the sound shoulder, and is held backward by a strap passing around the sound shoulder, acting in conjunction with the anterior horn of the crutchhead, thus doing away with any pressure over the seat of injury.

The splint, if it may be so called, is light, easy of application, which may be either over or under the clothing, a point not without value in many cases;

comfortable to wear, being easily tolerated by children; permits of early limited motion of the arm; will not slip or stretch, and, so far as I know, the results in all cases in which it has been used have been as nearly perfect as the most exacting could wish. The crutchhead is of sufficient size to carry the arm somewhat outward from the body, and may be padded or not, to suit the ideas of the surgeon; at the same time it is not likely to cause undue pressure upon the contents of the axilla, as there is no pressure exerted over the top of the shoulder, and the arm is supported in a sling, or by pinning the sleeve to the clothing.—Curtis, *N. A. Pract.*

DRY DIET.—1. Under the influence of a "relatively dry diet," both the assimilation and metabolism of the mineral constituents of food are usually distinctly increased. The following table shows the respective surpluses in average per cent. figures:

NaCl.....	1.5.....	7.5
P ₂ O ₅	8.0.....	8.0
SO ₃	11.7.....	16.1
CaO.....	11.3.....	13.8
MgO.....	13.6.....	21.5

2. It is highly probable that such increase is dependent, primarily, upon inspissation of the blood, the latter tending to restore its normal proportion of water by way of an intensified absorption of fluids from the gastro-intestinal tracts.

3. The per cent. relation between water voided through the kidneys and ingested water invariably increases, the surplus averaging 20.2 per cent.

4. On the whole, the diminished ingestion of fluids (which plays so important a part in Oertel's method of treatment of cardiac and certain other affections), affords an excellent means for promoting the elimination from the system both of water and mineral constituents.

5. Such dietetic restriction, however, is accompanied by a train of unpleasant subjective and objective phenomena. Thus, as a rule, even about the first evening of the reduced ingestion of liquids, the subject begins to experience thirst, which steadily increases to a troublesome extent. The appetite at the same time distinctly fails; while on a third, or more frequently a fourth, day, there appear physical lassitude and mental languor, with aversion to work. Moreover, defecation becomes rather difficult (on account of dryness of fæces).—*Prov. Med. Jour.*

AMPUTATION UNDER COCAINE.—Thos. S.—, a short, stout, robust, muscular laborer, of a lymphatic temperament, was brought from Wright's mill to my office in the forenoon of June 13, 1890. His right hand was completely crushed as far as the wrist, the result of being caught between the drawheads of two loaded cars, while attempting to couple them. His face was ashen color, and he seemed faint and distressed from the effects of the shock.

His heart and lungs being apparently in good condition, I decided to administer chloroform, and began to give it from a paper cone containing some absorbent lint, on which was poured about a drachm of the anæsthetic, the cone being about one inch from the face, so as to give him plenty of air. After two or three inhalations, respiration stopped, while the pulse remained good. On taking away the cone and striking the thorax several times respiration reappeared, but upon replacing the cone it again stopped, each process being repeated three times, after which I laid the chloroform aside, and not having any ether in the office, concluded to try cocaine.

Filling a 20-minim hypodermic syringe with a 5 per cent. solution, I injected 5 minims into the dorsal and 5 into the palmar surface of the wrist, just opposite the posterior side of the head of the radius. No bandage, compress or tourniquet was used above. After waiting five minutes I repeated the injections, same amount and very nearly in the same localities, and immediately began the operation without professional assistance. The patient reclined in the operating chair, looking away, and talked all during the operation, not complaining of pain except during division of the deep tissues on the palmar side of the wrist. After completing the amputation I applied a 10 per cent. solution of cocaine to the open wound for about two minutes before closing and dressing it.

Now comes what seems to me the only part of the case which merits much consideration. The patient arose from the chair, expressed himself as feeling very much better, walked out of the office, got into the buggy, rode two and a half miles to the mill, ate a good big dinner, and never kept his bed a day nor missed a meal from the effects of the operation. The shock had disappeared. Did the cocaine cause the disappearance? I would like to have the opinion of others on the subject.—Rhodes, *Occid. Med. Times*.

PREVENTION OF CRUELTY TO HUMAN BEINGS.—The Massachusetts "Society for the Prevention of Cruelty to Animals" has adopted a most ingenious and effective method for carrying out a most important item of its mission. The principal streets of Boston are now patrolled by men bearing banners on which are inscribed, "Please Blanket Your Horses." Seeing a fashionable equipage drawn up in front of a fashionable store, and the horses standing in the cold, minus blankets, the agent of the society plants himself and his sign in front of the horses. It takes but a few minutes for a crowd to collect. When the mistress of the horses emerges from the store and waddles toward her carriage, the crowd attracts her attention. Looking up, she reads the suggestive placard. At first surprise, indignation, resentment are the mastering emotions, but soon common sense and humanity are in the ascendancy; imperative orders are given to the coachman, and these particular horses are never again seen on a cold day without blankets. What an admirable method is this for accomplishing that most praiseworthy work of caring for that portion of the animal race unable to care for itself. But, admirable as it is, and deserving of all possible sympathy and support, does it not seem that we should make some similar effort to care for those animals of a higher class, who, while able to care for themselves, yet through ignorance or carelessness fail to do so? We would suggest that, in company with the placard already mentioned, a man be sent about our streets suggesting to these fat "American Dowager-Duchesses," whose livers are veritable "*pate-de-foie-gras*," that they should dispose of their luxurious equipages and resort more to the means of locomotion that has been furnished to them by nature.

The inactive, passive, indolent existence of luxury and, we might also add, of gluttony, that is indulged in by our rich women of fifty years of age and over (the class who use horses and carriages), is most favorable for the production of fatty degeneration of the vital organs, and is most prejudicial to health. If it be necessary that one must own a fine "*establishment*" in order that she may be regarded as a person of fashion and wealth, let it be so; but let her (after having placed her monogram conspicuously all over the harness and carriage, so that the ownership may

be unquestioned) place her equipage at the disposal of *her worst enemy* and do her own traveling by foot.
—*Annals of Hygiene*.

TREATMENT OF CHRONIC ENDOMETRITIS.—The treatment of this condition resolves itself into drainage and the application of mild astringents or caustics to the endometrium. I think the tincture of iodine will answer best in this instance, though iodized phenol for a first application might be preferable. In applying this fluid it is necessary to protect the vagina from injury by a pledget of cotton or other material, for carbolic acid or iodine will destroy the epithelium of the vaginal wall.

This application is made by means of a cotton wrapped applicator, which, after its introduction into the cavity of the uterus, should be permitted to remain there for a minute or so, for by too rapid a withdrawal of the instrument you are apt to tear away the eschar that may have formed as a result of the application. Have your tampons of tannin and iodoform ready, so that you can apply them on withdrawal of the applicator. Instruct your patient to keep quiet the rest of the day, and remove the tampons on the following morning, and use hot douches at a temperature of 110° or 115° F., with the patient in a recumbent position. In about four days you may again repeat this intra-uterine medication, and if you then find that there is little or no oozing, you can conclude that you have done enough cauterization, and apply the compound tincture of iodine in the same way. The latter treatment may have to be kept up for several weeks or months.

Several very eminent gynecologists claim that intra-uterine applications are practically useless. I admit these applications are not as effective as we should wish them to be, but still they are attended with some benefit to the patient. I have certainly cured a large number of cases of chronic endometritis, and if I had not tried to cure them by intra-uterine applications I should never have succeeded.

There are various other ways in which these applications can be made to the endometrium, besides the one I have just alluded to. The practice of injecting iodine or other fluids by means of a syringe into the uterus is certainly a much more efficient method, but it may prove so very efficient that you will not desire to try it a second time. I have seen uterine colic follow its use, and the uterine colic thus induced is apt to be so severe as to bring on collapse. There have been cases of death from peritonitis occurring as a result of this procedure. I therefore warn you against this method of applying these medicinal agents to the interior of the uterus.

Another agent I employ to a great extent for intra-uterine medication is a 50 per cent. solution of chloride of zinc. This is a very effective remedy, but it is necessary to keep the patient in bed after using it. It should be applied but once in ten days, and only a few times in any given case.

The *sine qua non* for intra-uterine applications is a patulous uterine canal, with the external and internal os so wide as to permit the passage of a good-sized applicator, wrapped with a large film of cotton, up to the fundus, if you choose. Of course, in all instances, the removal of the cause of the affection by appropriate remedies, if you can do so, is the proper course to pursue, whether that cause be pelvic congestion, prolapse, constipation, abdominal plethora or some other condition—Mundè, *Int. Jour. Surgery*.

SALT.—I am sure we all take too much of this condiment, and then are driven to drink abnormally in order to wash it out of the system. Vegetarians need salt in order to give savour to their colorless diet, mixed eaters much less, pure flesh eaters—like the South American *gauchos*, and, when they can get enough of it, the Australian aborigines—none at all, for all the salt we should decompose in order to digest that flesh exists in it already. And it was one of the most touching, the most pathetic sorrows of the then recently discovered New Zealander, in those vanished days when we believed that the noble savage was all our fancy and Fenimore Cooper painted him, that the missionaries we sent out were too salt, really too savoury, for their unsophisticated taste. Indeed, one of those guileless children of nature assured a cousin of my own, with the frankest sincerity, and with many apologies, that he would rather not eat him; in fact, should not think of such a thing until every other pig in the village had been sacrificed.

And this explains much of the endurance of fatigue, or rather its retarded induction, exhibited by the savage; an Australian "boy" will eat a fair-sized leg of mutton, and run like the prophet of old with his loins rather scantily girded up, hour after hour, with untired speed. A white man trained into as good condition breaks down, not from exhaustion, but thirst, in an hour's time. He has only to lose a few ounces of the water of his blood by perspiration, to render it so salt that its function as an oxygenator, from the contracted red cells, can no longer be carried on; he pants for breath, not because his lungs are overtaxed; he sinks dead-beat, not because his muscles are overwearyed, but because his blood has become unfit for its most important duty, and the muscles, for want of oxygen, are narcotized into helplessness. A man in training should eschew salt as carefully as he avoids alcohol.

Excessive thirst is best relieved by sipping hot tea, and if the tongue be parched, by adding a tablespoonful of brandy; alcohol cools the body by relaxing the capillaries generally, and so favoring transpiration in all directions; hot tea, or in fact simply hot water, by reducing the tension of those of the mouth; and it is much more quickly absorbed than cold for the same reason. But let the brandy be restricted to the single tablespoonful, the tea be of the first brew, but the weakest, the water, as Tim O'Reilly directed it to be for the due concoction of punch, "rather hotter than boiling," and only just shown into the well-charged teapot and out again.

It has been said that the only skill required in treating enteric fever is in deciding when we should begin to give alcohol; in that and all other morbid conditions I have but one test, but I believe it is infallible—the dryness or moisture of the tongue. If this organ be dry I give brandy in small and frequently repeated doses until it becomes soft and moist, half an ounce perhaps every hour, but once in a case (which recovered) of puerperal fever two ounces hourly day after day. But if the tongue be moist to the touch, not one drop, whatever the condition of the patient may be; being convinced that it could then do nothing but harm. The idea that wine and spirits "give strength to the system" is an idea too firmly ingrained into our national life to dislodge, and even in our profession it is only slowly receding before sounder pathology and better knowledge.

—*Provincial Med. Jour.*

THE further use of Koch's tuberculin has been officially forbidden in the hospitals of Warsaw.

Medical News and Miscellany.

SCARLATINA threatens to become epidemic at Lombard, Illinois.

Two hundred and fifty soldiers at Fort Omaha are in the hospital with gripe.

A NEW eclectic medical college has been chartered in Chicago, and will open its doors next fall.

THE *Chicago News* is going for the management of the county hospital with true Chicago vigor.

DR. S. PRESTON JONES died March 13, at Merchantville, N. J., of fatty degeneration of the heart.

THE medical staff of St. Clement's Hospital consists of twenty-three physicians, of whom twenty-one are graduates of the University of Pennsylvania.

THE village of Sandy Lake, in Mercer county, Pa., is threatened with an overflow from the lake. The Legislature is asked for an appropriation to open an outlet.

THE *Paris Figaro* asserts that Dr. Bernheim's treatment of tuberculosis by transfusion of blood is more dangerous than the Koch method, and that it has caused four deaths in five days.

THERE is a place in New York where a night's lodging and a glass of beer can be had for two cents. But the beer is drugged, and the victim awakes to find himself stripped of his clothing.

DR. W. H. WALLING has accepted the invitation of the Faculty of the Medico-Chirurgical College to fill the Lectureship upon Electro-therapeutics, made vacant by the resignation of Dr. Mettler.

MRS. LIZZIE MURRELL, a saleswoman in Chicago, was declared insane and sent to Kankakee. She had invested \$2,000 in a building association which failed, and the thought that she had lost the money unsettled her reason.

ONE hundred and fifty graduates received their diplomas on March 2, from the University of Louisville. The competition of rival schools has not injured the university much, as this is the largest class she ever graduated.

THERE'S a man named Dowd, located, we think, in Washington, who sells a gymnastic apparatus for home use. It consists of a pulley with weights that can be arranged in your bedroom, and used for a few minutes every time you come into the room. It is very handy and useful.

DR. NICHOLAS SENN has accepted a chair in the Chicago Medical College. His work on the Principles of Surgery has been received with much favor abroad. The *Journal of Laryngology and Rhinology* speaks very favorably of it; much more so than English journals generally do when reviewing an American book.

MOST persons in this country pronounce phthisis "tee-sis;" yet among eight lexicographical authorities quoted by Webster not one gives this pronunciation, the predominant one being "thi-sis." Only one authority (Smart) calls it "tisis," a pronunciation prevalent in Boston. Our esteemed leguminophagous colleagues cannot, therefore, put on any airs, other than those legitimately resulting from their strong east winds.—*Med. Record.*

As rumor has it, a new medical journal is to be started in Chicago. It is to be called *The Chicago Medical Record*. We have not heard whether William Wood & Co. of New York have given their consent to the name and publication or not. The pabulum of the new journal is to be the proceedings of the Chicago Medical Society. This is the first fruits of moving the *Association Journal* to Washington. The artful Surgeon-General Hamilton will be glad to know of this gestation, and that *The Standard* is to be made a daily, and all the monthlies will hereafter appear as often as once a week. The new venture will be published by Keener, if the trade permits, and the editorial management will be in the hands of a North Side Medical School.—*N. A. Pract.*

THERE are fourteen candidates for Lazaretto Physician, including Dr. F. S. Wilson, of Montgomery country, who held the office under Governor Pattison before; Dr. C. S. Baker, of Philadelphia, and Dr. R. B. Schulze, of Reading. Six candidates are in the field for Port Physician. They are Dr. D. J. Loughlin, who was inspector of drugs in the Custom House under President Cleveland; Dr. Henry Leffmann, former Port Physician under Governor Pattison; Dr. John J. Healy, Dr. C. A. Voorhees, Dr. William Delker, Dr. John I. McGuigan, and Dr. William Pratt Reed, all of Philadelphia; Dr. A. C. Light, of Lebanon; Dr. T. J. Boyer, of Madera; Dr. R. C. Clark, of Columbus; Dr. H. C. Lessig, of Chambersburg, and Dr. H. Montgomery Moody, of East Smithfield.

THE disinfection of passenger cars is receiving the serious attention of foreign railway companies, and action in a similar direction would not be amiss in this country. Owing to the tenacity of disease germs it is wholly unknown as to how much they are disseminated by our luxurious upholstered sleepers and coaches. Obeying the laws of cleanliness will not alone suffice to destroy these bacteria, and in such instances as when the drift of travel is mostly in the direction of health resorts by subjects known to be afflicted with diseases of various forms, the most rigid sanitation should be observed and thorough fumigation and disinfection enforced. In France they carry sanitary conditions so far as to discard the velvet cushions and silk curtains and drapery in the coaches running to southern districts, where travel is heavy among passengers afflicted with pulmonary complaints, and have adopted instead soft leather coverings. Bed clothing is thoroughly disinfected and mattresses are covered with impervious silk or with gutta-percha.—*Railway Age*.

At the last meeting of the Chicago Academy of Sciences, Prof. Long gave an account of analyses made by him of the waters obtained from the gravel seams in the boulder-drift clay through which the new tunnel under the lake is being excavated.

Prof. Long finds that the waters of Chicago are of three distinct types, very different from each other. First, we have the lake water, containing only a very small amount of mineral ingredients. Then we have the artesian wells bringing up from a depth of 1,200 feet waters having a somewhat larger amount of various saline substances. Between the two—that is, below the waters of the lake and above the rock whose crevices are filled with the artesian water—lies about eighty feet of tough clay full of boulders, and traversed by water-bearing seams and “pockets” of gravel. The waters here are totally different from

those in the lake above and the rock beneath. They contain a large quantity of the carbonate of soda, lime, magnesia, and potash, and in that respect resemble the famous Vichy mineral water, so celebrated for the cure of rheumatism and kindred diseases. It is found that the workmen in the tunnel prefer this water for drink, and say it is vastly better than the lake water.

The academy has requested Prof. Long to continue these researches throughout the whole length of the tunnel, and to report the results at a future time.

Suitable engineering plans would enable one to obtain these carbonate waters in unlimited abundance for curative purposes if any enterprising person should undertake the work.

A little germ in a sewer grew
And there increased to a million or two,
When all set forth, on mischief bent,
And ascended a pipe till they came to a vent.
They parleyed much which way to go,
Then started up the waste-pipe slow:
But a plumber there had set his trap,
With many a twist and bang and rap,
And into it the microbes flew
To the number of a million or two.
And then the flush came rushing down,
And thus the plumber saved the town;
For they were typhoid germs, they say,
That fell in the plumber's trap that day.

—*Sanitary News*.

A PARLIAMENTARY FOG FILTER.—Far down in the recesses of the House of Commons, beneath the feet of unsuspecting Senators, is a spectacle which, if it could be exhibited in a public place in London, would send a thrill of horror through the community. It is a vast layer of what at first sight looks like cotton wool that has been first dragged through the Thames mud and finally sprinkled over with ink. Originally it was a mass of virgin white cotton wool. For many years the resident engineers have been battling with the fog. They have modified its effects within the House, but never till now have they succeeded in absolutely conquering it. A layer of cotton wool is prepared, and the air, drawn from outside, is simply driven through it by force of a steam fan. The bed of cotton wool is six inches thick, and the area in use this week has extended over 800 feet. The effect of the process is simply startling. If this filth had not been arrested by the layer of cotton wool it would have passed into the House and into the lungs of honorable members.

WHAT RUSSIANS LAUGH AT.—“Ah, doctor, allow me to give you my heartiest thanks for that medicine you prescribed for me.”

“So it helped you very much.”

“Yes, indeed, immensely.”

“How many bottles did you use?”

“I didn't drink any myself, but my uncle got away with one bottle, and soon after breathed his last. I inherit all his property.”—*Svet*.

TO CONTRIBUTORS AND CORRESPONDENTS:

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

Army, Navy and Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from March 8, to March 16, 1891.

By direction of the Secretary of War, Major Henry M. Cronkett, Surgeon, will report in person to the commanding officer, Fort Adams, Rhode Island, for temporary duty at that post, until the arrival of a successor to Major Samuel M. Horton, Surgeon, when he will return to his proper station. Par. 8, S. O. 45, A. G. O., Washington, D.C., February 27, 1891.

War Department, Washington, D.C., February 26, 1891. The following named officers, having been found by army retiring boards incapacitated for active service on account of disability incident to the service, are, by direction of the President, retired from active service this date, under the provisions of Section 1,251, Revised Statutes: Captain J. Victor DeHanne, Assistant-Surgeon, and Captain William R. Steinmetz, Assistant-Surgeon. Par. 18, S. O. 44, A. G. O., February 26, 1891.

By direction of the Secretary of War, Captain William O. Owen, Jr., Assistant-Surgeon, is relieved from further duty in the Department of the Missouri, and will report in person to the commanding officer, Jefferson Barracks, Missouri, for duty at that station, and by letter to the superintendent of the recruiting service. Par. 2, S. O. 44, A. G. O., Washington, February 26, 1891.

By direction of the acting Secretary of War, Captain William C. Shannon, Assistant-Surgeon, now on duty at Fort Apache, Arizona, will repair to this city and report in person to the Adjutant-General of the Army for further orders. Par. 5 S. O. 55, A. G. O., Washington, March 11, 1891.

By direction of the acting Secretary of War, Captain Henry I. Raymond, Assistant-Surgeon, is relieved from duty at Newport Barracks, Kentucky, and assigned to duty at Fort Thomas, Kentucky, reporting in person to the commanding officer, Fort Thomas, and by letter to the commanding general, Division of the Atlantic. Par. 18, S. O. 54, A. G. O., Washington, D.C., March 10, 1891.

War Department, Washington, February 26, 1891. Captain James A. Finley, Assistant Surgeon, having been found by an

army retiring board incapacitated for active service on account of disability, which is not the result of any incident of service, is, by direction of the President, wholly retired from the service this date, under the provisions of sections 1,252 and 1,275 Revised Statutes, and his name will be henceforward omitted from the Army Register. Par. 2, S. O. 54, A. G. O., Washington, March 10, 1891.

By direction of the Secretary of War, a board of medical officers, to consist of: Colonel Edward P. Vallum, Chief Medical Purveyor; Lieutenant-Colonel Dallas Bache, Surgeon; Major Alfred C. Girard, Surgeon; and Captain Charles M. Gandy, Assistant-Surgeon, is constituted to meet in New York City, on March 16, 1891, or as soon thereafter as practicable, for the examination of candidates for admission into the Medical Corps of the Army, and such other business as the Surgeon-General may desire to bring before it. Par. 18, S. O. 52, A. G. O., Washington, D.C., March 7, 1891.

RETIREMENT.

Lieutenant-Colonel Blencone E. Fryer, Assistant-Medical Purveyor, February 24, 1891.

PROMOTIONS.

Major Charles R. Greenleaf, to be Lieutenant-Colonel and Assistant-Medical Purveyor, February 24, 1891.

Captain Charles K. Winne, Assistant-Surgeon, to be Major and Surgeon, February 22, 1891.

Captain Timothy E. Wilcox, Assistant-Surgeon, to be Major and Surgeon, February 24, 1891.

Captain Fred. C. Ainsworth, Assistant-Surgeon, to be Major and Surgeon, February 27, 1891.

Captain Valery Havard, Assistant-Surgeon, to be Major and Surgeon, February 27, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending March 14, 1891.

KITE, G. W., Past Assistant-Surgeon. Ordered from New York Hospital and to the U. S. S. "Lancaster."

NORTH, JR., J. H., Assistant-Surgeon. Detached from the U. S. S. "Lancaster" and wait orders.

SMITH, G. T., Assistant-Surgeon. Detached from U. S. S. "Independence," and ordered to the "Mohican."

LUNG, GEORGE A., Assistant-Surgeon. Detached from the U. S. S. "Mohican" and ordered to Washington, D.C., in charge of insane patients.

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ARTHUR W. WATSON, M.D.

The Times and Register.

NEW YORK AND PHILADELPHIA, MARCH 28, 1891.

Whole No. 655.

	PAGE		PAGE		PAGE
ORIGINAL ARTICLES.		Reflections upon the Management of Philadelphia Medical Journals	263	Herpes Zoster.	Harrison 267
RELATION OF THE FAMILY PHYSICIAN TO ABDOMINAL SURGERY. By E. E. MONTGOMERY, M.D.	253	Eclecticism	263	Germicide Powers of Urine.	Richter 267
				"Flushing" as a Cause of Morbid Change.	Hutchinson 267
THE POLYCLINIC.		LETTERS TO THE EDITOR.		Lupus of the Face.	Walker 267
COOPER HOSPITAL NOTES:		Dr. Trenholme's Priority.	Rohé 264	Massage in Incontinence of Urine in Women.	Bagot 268
Operation for Laceration of the Cervix Uteri.	Godfrey 260	Screw Worms.	Payne 264	Varicocele.	Bennett 268
JEFFERSON MEDICAL COLLEGE HOSPITAL:		First Annual Report of the New York Pasteur Institute.	Gibier 264	Miners' Nystagmus.	Jones 268
Neuralgic Pains in Head and Chest	260	Trapping Lumbricoids.	Sangree 264	Statistics of Anæsthetics.	Med. Press 268
Muscular Rheumatism.	Bartholow 260	Cincinnati Correspondence	265	Tracheal Tugging in Aneurism.	Macdonnell 268
Epileptiform Seizures	261			Treatment of Balanitis.	Chichester 269
Round Worms	261	BOOK NOTICES.		The Present Position of Disinfection.	Blyth 269
Cessation of Menstruation	261	Transactions of the American Orthopædic Association	266	On the Use of Petersen's Rectal Bag as an Aid in Sounding for Stone, and in Lithotripsy where the Bladder is Pouched or Sacculated.	Harrison 270
Disorder of the Menstrual Function.	Bartholow 261	Transactions of the American Association of Obstetricians and Gynecologists	266	Treatment of Pulmonary Phthisis.	Charles 270
Fatty Degeneration of the Heart.	Solish-Cohen 261	Proceedings of the Philadelphia County Medical Society.	Watson 266	Treatment of Nervous Dyspepsia.	Batten 271
Syphilitic Eruption.	Wiegman 261	The Pharmacology of the Newer Materia Medica	266	FRENCH NOTES.	Roussel 272
Abscess of the Neck.	Keen 261	Plain Talks on Electricity and Batteries.	Bigelow 266	Treatment of Oxyuris Vermicularis.	La France Med. 272
Eczema.	Stelwagon 261	The Asclepiad	266	Preventive Against Dental Caries.	La Méd. Mod. 272
An Experience with Sewer Gas.	Waugh 261	Researches upon Respiration.	Chapman and Brubaker 266	Treatment of Infantile Paralysis.	Simon 272
		Hereditary, Health, and Personal Beauty.	Shoemaker 266		
EDITORIALS.		PAMPHLETS	267	MEDICAL NEWS AND MISCELLANY,	273
PEROXIDE OF HYDROGEN	262			ARMY, NAVY, AND MARINE HOSPITAL SERVICE	274
BONE-GRAFTING	263	THE MEDICAL DIGEST.		NOTES AND ITEMS	274, 275
		Liebreich's Tuberculosis Remedy	261		
ANNOTATIONS.		Report of Cases of Alcoholism.	Latimer 267		
Sale of Koch's Lymph	263				
The Doctor's Skill as a "Raconteur"	263				
The "Hahnemannian Monthly"	263				

Original Articles.

RELATION OF THE FAMILY PHYSICIAN
TO ABDOMINAL SURGERY.¹

By E. E. MONTGOMERY, M.D.

Professor of Gynecology Medico-Chirurgical College; Obstetrician to the Philadelphia Hospital.

MUCH has been written for and against specialism in medicine, but the conviction remains that he is best equipped for dealing with difficult and complicated cases who has had the largest experience in their diagnosis and treatment. This has been emphasized in the treatment of diseases of the eye; it is no less so in the treatment of diseases of the genito-urinary tract in the female. It is true that there is a constant tendency on the part of the specialist to see all diseases through his particular specialty, and to give undue importance to the influence on the economy of the particular organs which he has elected to treat. While it is important to guard against this mistake, we must remember that there are opportunities for mistakes just as grave, upon the other hand, in overlooking the influence of the special organs upon the general health of the individual. Then, too, from this tendency to specialism, has developed the remarkable work that has been accomplished in the last fifteen years in the field of abdominal surgery. At the time of my entrance upon the practice of medicine, 1874, abdominal operations were confined to conditions in which the ovaries were the

¹Read before the Lycoming County Medical Society, Williamsport, June 6, 1891.

seat of large cysts, and I am well justified in saying "large," for the reason that the majority of operators, at that time, were in favor of permitting these cysts to attain to such a size that the patient suffered marked inconvenience from their presence, and until they had exerted a deleterious influence upon her health, believing that under such circumstances the chances for a favorable result were greatly enhanced.

Operations were rarely done for the removal of fibroid tumors of the uterus, and then, usually when the operator had mistaken the condition for an ovarian cyst. The majority of the profession were standing aghast at the temerity of such men as Battey and Tait, in having suggested the extension of abdominal work to the treatment of diseases arising from nervous and pathological conditions of the tubes and ovaries. Such measures were considered as derogatory to the dignity and honor of the profession, in so much as the operation was a mutilating one, unsexing the individual. Their dogma might have been expressed, "It is better that many women endure lives of suffering than that any lose organs that are worse than useless."

In the present position of abdominal surgery, we find that a wonderful development has taken place during this period ; now no portion of the abdominal cavity or its viscera is permitted to pass without having been the seat of operative procedure, and in the development and progress of this field of work, we, as American physicians and surgeons, have every reason for pride, for is it not due to American genius that we have the primary operation of ovariectomy ? And in the galaxy of American stars we perceive the names of McDowell, of Kentucky ; Atlee, of Penn-

sylvania; Dunlap, of Ohio; Kimball, of Massachusetts; Sims, of Alabama; Peaslee, of New York, and many others now living, to mention whose names would be an invidious distinction. The genius and originality of McDowell, the courage and perseverance of Atlee, Dunlap and Kimball, placed ovariectomy among the recognized operations. The study and the sympathetic desire, on the part of Battey, to relieve human suffering, led to a wide extension of the field of abdominal work, when he suggested, almost simultaneously with Hegar and Tait, the removal of the uterine appendages. The brilliant mind of Sims was not long in realizing the importance of explorations of the abdominal cavity in case of injury to its contents. The measures he suggested, as carried out by Budd, Davis, Barrows, Senn, and other American surgeons, have revolutionized the whole method of treating gun-shot injuries of the abdomen. That the accomplishments of this special department of work have been of infinite value to the human race is evident from the work of such men as Wells, Lawson Tait, and others who have done a large number of such operations. It is, indeed, estimated that Spencer Wells, in his operations for the removal of ovarian tumors, has added several hundred years to human life. There is probably no field of surgery in which the complications are so marked; in which the difficulties to be met with are so great; in which the diagnosis of the conditions prior to operation is so uncertain, as in this of abdominal surgery, consequently the individual who practices it must be peculiarly fitted for his work by large experience, by ability to think quickly, and to exercise promptly the decisions that may be made, as to the conditions that present themselves before him, for in many cases upon prompt action depends the life of the individual.

The special skill is not only important in the diagnosis and operation, but equally so in the after-treatment. How frequently do we find that the results of a brilliant diagnosis, a most skilfully and carefully performed operation are marred by blundering in the subsequent conduct of the treatment. The recognition of this subject has led to the instituting of private hospitals by men who specially devote themselves to this work, where they can completely control all the details of the subsequent treatment. This is the ideal plan, and the one which should be chosen wherever the exigencies of the case will permit of its execution.

There are, however, exceptions where this cannot be accomplished, owing to the condition of the patient forbidding her removal, or the disinclination of herself or friends to the separation incident upon having the operation done at a distance. Whether the patient is operated upon at her own home or abroad the same principle holds. The surgeon operating is held responsible for the result, whether disaster occurs during operation or convalescence, although he may not have seen the case subsequent to the completion of the first dressing. Not unfrequently have I been told that this or that prominent surgeon has had misfortune in a case where the operation had been performed and subsequently cared for by some one else. The abdominal surgeon then takes the logical ground, that if he is to be held responsible for after results, he must be placed in the position of absolute control, by proxy, where he cannot be in person, and insists upon the employment by the patient at a distance of a nurse that he has especially trained, one that is familiar with the details of subsequent treatment, who must have all to do with the wound and drainage tube where the latter is used. She must have com-

plete direction as to the diet and care of the patient, and be consulted as to the details, even of medical treatment. This may seem an ignominious position for the family physician, yet, when we consider that the most remarkable results have been accomplished in special lines of treatment which are at variance to the generally accepted methods, it does seem that the responsibilities accepted by the abdominal surgeon, and the interest of the patient necessarily justify such a demand. For instance, it is difficult for the attending physician to withhold the use of morphine or opium where the patient is complaining of distress and pain, and yet, in many cases, the use of this drug is far more detrimental to the patient than would be the amount of pain from which she suffers. It is difficult, also, for one unaccustomed to its use, to appreciate the importance of early and repeated use of the saline for the relief of pain and the arrest of inflammatory development and promotion of intestinal drainage. It is difficult to appreciate the importance of great care in the attention to the drainage tube and in avoiding all opportunity for the introduction of septic material into it. A syringe that is used for the purpose of evacuating the tube is not unfrequently inadvertently placed upon the table, or in a basin, and without subsequent cleansing is reintroduced into the tube, carrying with it septic material. That these are not mere matters of sentiment a case in my own observation may amply illustrate. A few weeks ago I was asked by a young gentleman in the city of Philadelphia, for whom I have operated a number of times, to see a case of acute pelvic disease, and to come prepared to operate if necessary. Upon examination of the patient, I found a woman who had been sick for three weeks with inflammation of the tubes and ovaries, which had followed exposure to cold during menstruation. Quite a marked mass of exudation could be felt on either side of the uterus and everything bound firmly down. Upon one side the sensation of fluctuation was quite distinct, patient had a temperature varying from 101 to 103, and was considerably emaciated and depressed. Pain had been so severe as to have seemed to require that the patient be continuously kept under the influence of morphine. She was as carefully cleansed as the urgency of the case would permit, and subjected to operation. The ovaries and tubes on both sides were removed. The coils of intestine were extensively adherent on both sides, and the one upon the left side contained quite a considerable quantity of pus. The abdominal cavity was thoroughly irrigated and a drainage tube inserted. This tube was to be frequently evacuated by a syringe. The following day the patient was doing well, no unpleasant symptoms. The discharge decreasing from the drainage tube it was suggested that on the following day we would remove it and insert in its place, through the abdominal walls, a tent of gauze, in order to keep the external portion of the wound open. Upon my arrival the following day, I found the attending physician had removed the drainage tube and inserted the gauze. As this change had been made it did not seem necessary or advisable for me to subject his method to inspection. The following day, upon entering the room, the physician was preparing to change the gauze tent, and had removed the gauze from its receptacle, placed it upon the table, cut off a strip which he placed upon another table, ready to be packed into the open wound. I took occasion to make a change in the method of procedure, in order to avoid the necessity of the contact of this gauze, which had had so ample an opportunity to gather up

germs from these various articles of furniture upon which it had been placed.

The patient had suppuration in the line of the wound, and the removal of the dressing disclosed that the gauze had not been inserted into the wound through the abdominal wall. The patient had had subsequently an elevation of temperature and indication of slight septic involvement. I once feared that it would be necessary to reopen the abdominal wound in order to secure drainage; but this, fortunately, has been avoided. The patient, however, has had a longer convalescence, more extensive intestinal adhesions, and greater risk than it was necessary that she should have undergone. The opportunities for the entrance of septic material are so many, the details for their exclusion so minute, that it requires one constantly trained to be able to carry through a case successfully.

But, you will probably ask, in view of this, "What has the family physician to do with this work?" I reply, "Very much," for the reason that these cases first come under his observation, and upon a proper appreciation of the case by him depends, to a great degree, the future of the patient. In many diseases, now referred to the realm of abdominal surgery, prompt diagnosis is requisite, in order that proper measures may be instituted for the relief of the patient.

Thus, in a violent case of appendicitis, with rupture, the fate of the patient is decided in forty-eight hours. Should the physician be ignorant of the symptoms that should present themselves in such a case, and fail in their proper appreciation, the fate of his patient is decided before he has an opportunity to secure skilled assistance, or to proceed to proper measures himself. If the physician continues to treat a case of uterine hemorrhage, at or near the climacteric, for a number of months, for possible disturbance of the menopause, malignant disease of the uterus will frequently have attained such involvement of the uterus and surrounding structures as to render any method of treatment, other than to render the patient more comfortable for a few months, entirely futile. Not unfrequently do we find following a severe attack of gonorrhœa, involvement of the pelvic structures, formation of abscesses, or the development of a peritonitis, which rapidly becomes general, and, in which, only prompt resort to operative procedure affords the individual the slightest chance for life. The same may be true of septic conditions following abortion or parturition; indeed, I might enumerate any number of instances and conditions in which the importance of proper appreciation of the indications must be recognized by the family physician. It will be seen then, that upon the family physician falls, to a certain degree, the responsibility of the diagnosis of the conditions which will influence the life or subsequent health of the individual. In many cases the patient will depend largely upon his judgment as to the time when an operation shall be done, and as to the operator who shall be selected for its performance. Upon his judgment they will frequently decide as to whether the operation shall be done at home, or the patient shall be removed to a city or special hospital, where she can have the increased facilities for her attention and relief. In consideration of this position the rights and relations of the family physician should receive careful consideration and respect, from both the consulting physician and the friends of the patient, he should be made to feel that in waiving his rights as the attendant of the patient for her interests, his emolument in the case would not be ignored, and it

should be the duty of the consultant or operator, in any case, to see that the family physician, who had honored him by his selection, should receive proper consideration.

The class of cases that come under his observation may be divided into those in which he should advise operation, and to those on the other hand, in which it is his absolute duty to urge it, and, in some cases, though he may not be as well equipped as others, he may be obliged to resort to its performance himself.

The cases in which the physician has an opportunity for election as to the time, place, and operator will be those suffering with ovarian tumors, the majority of cases of tubal and ovarian diseases, cancer of the uterus, uterine myomata, and pregnancy with deformed pelvis. As we have before said, in the earlier part of the history of this work, and, indeed, until very recent times, ovarian growths were permitted to attain to large size and to produce considerable distress and discomfort to the patient before she was subjected to operative procedure. More recently, however, the development of the technique of abdominal work, with the improved results from the use of aseptic and antiseptic work, has so reduced the mortality of all operative procedures upon the peritoneum that patients are no longer advised to wait before obtaining relief from such growths; indeed, the advantages are often on the side of early operation, as where these growths are allowed to remain for a long time they produce by their pressure irritation of the surrounding parts, and the development of acute or sub-acute peritonitis, and the development of adhesions. The presence of these adhesions increases the difficulties of removal and the danger of the operation.

Ovarian growths are subject to other conditions, which emphasize the importance of early operation. Thus, we may have, not unfrequently, twisting of the pedicle, interfering with the circulation in the growth, and producing inflammation or suppuration of the cyst.

A case came under my observation, only recently, in which a large ovarian cyst had, from such a cause, undergone inflammation, with extensive adhesions to the parietal peritoneum, the intestines, the omentum, and the stomach. The patient had suffered for three weeks prior to the operation from a sub-acute peritonitis, with constant nausea and vomiting, and complete inability to retain nourishment, and was, at the time of its performance, greatly reduced. She recovered without an unpleasant symptom, but unquestionably ran risks which would not have occurred had the operation been performed earlier.

Ovarian tumor is so frequently mistaken for other conditions, and particularly ascites, that it occurs to me that it would not be time misspent to say something of its diagnosis. The general appearance of the patient in ovarian growth and in ovarian tumor differs very greatly from that which is present in ascites. In ovarian growths of ordinary size the distention is confined to the abdomen, and is more prominent than we would find in ascites; as the patient lies upon the back with the abdominal walls relaxed, by having the limbs flexed, the central portion of the tumor is quite prominent, while in ascites you will notice that the abdomen will be somewhat flattened and more prominent in either lumbar region. In the latter condition, upon percussion over the abdomen, we will find a tympanitic resonance at the summit of the distension, while the resonance will be dull over the sides and lower part of the abdomen. If ovarian tumor, the resonance is absent

over the summit of the tumor, while upon the one flank we will find it tympanitic. This is due to the fact that the intestines containing gas are free to float to the surface, and the most prominent portion of the distension will, hence, be resonant. It is only in those cases in which there is a shortened mesentery, or inflammation has existed of sufficient extent to bind down the intestines, that there is opportunity for mistake. In very marked distension of the abdomen we may find a dull sound from percussion over the whole of the abdomen, but by deeper pressure the layer of fluid between the abdominal surface and the intestine is displaced, affording resonance. The tympanitic resonance in the flank is usually found upon the side opposite to that in which the ovarian tumor had its origin. This is a useful point in the diagnosis of the ovary which furnishes the cyst. The developing tumor pushes the intestine in front of it and to one side, so that as the tumor attains to large size the intestines are situated upon the opposite side and upper part of the abdomen. In many cases the cyst wall can readily be felt, or the abdominal surface moved over it.

Tubal and Ovarian Disease.—No department of abdominal work, not even the introduction of ovariectomy for the relief of ovarian tumors, has had greater influence for the welfare of the human race than has the appreciation of the proper pathology and treatment of diseases of the uterine appendages. Patients are now but seldom condemned to lives of invalidism and subjected to prolonged and worse than useless treatment for conditions formerly described as pelvic cellulitis and pelvic peritonitis. Indeed, these terms with the analagous ones of para and peri-metritis, convey false ideas. The investigation of pathological conditions upon the living subject by the abdominal surgeon, and the comparison of the data thus obtained with the physical signs, have demonstrated, what was before suspected, that local cellular and peritoneal inflammations are secondary to disease in the tubes and ovaries. This being true, it seems unwise to preserve a classification which describes results, rather than the process, as the appendages are the seat of disease, and the other conditions are involved in its extension. A preferable name is one which describes the original condition; hence, the name of salpingo-ovaritis is recommended for all these conditions. I would not have you infer that inflammation in the tubes naturally predisposes ovaritis, or the contrary, as we may have these conditions existing entirely separate from each other, and inducing symptoms that may be attributable to one or the other. The disease in the tubes is, in the great majority of cases, the result of extension from the uterine mucous membrane. It may exist in the form of slight inflammatory or catarrhal condition, which results in desquamation of the epithelium and increased secretion. This condition is recognized at once as the most frequent cause of ectopic gestation. This form of salpingitis may be the result of long-continued catarrhal inflammation of the tube; indeed, we may have a catarrhal inflammation result from exposure of the patient to cold at her menstrual period, in which the lining membrane of the tube will become extensively involved, causing increased secretion. In the inflammatory conditions the narrower portion of the tube—the uterine end—becomes obstructed through swelling, and the discharge, unable to find its exit into the uterus, regurgitates into the abdominal cavity through the outer end. As the fluid is extremely irritating it at once lights up an inflammatory condition, producing exudation of lymph Na-

ture's safeguard or barrier by which the tube is obstructed or closed. In this way the tube is converted into a sac, in which the continued secretion remains, thus leading to its dilatation. This sac may be filled with a thin, watery fluid, when it is known as hydro-salpinx. When the abdominal end is not completely closed, or the barriers are weak, we may have leakage and a relighting up of inflammatory conditions. In these cases the tubal sac is not usually very extensively adherent; it may form a large sausage-like mass, or even attain to considerable size. In cases, however, in which the origin of the inflammation has been either septic or specific, we find inflammation is more acute, and leads to the rapid formation of pus. In these cases, while we may have a largely-distended sac, we will find the adhesions very extensive, leading to the gluing together of intestines, omentum, uterus, and parietal surfaces, so that upon opening the abdomen of such a patient it is, at times, exceedingly difficult to find any landmark by which we may proceed to enucleate the offending structure. By the examination of such a patient we will find the pelvis filled up with a large mass of exudation, presenting an appearance similar to that we would imagine should exist if a quantity of molten glue had been poured into the cavity and had become solidified. This is the board-like condition that was described by some of the earlier writers—a condition which necessarily leads to great and continuous discomfort of the patient, to recurring inflammatory attacks, which place her in bed and frequently endanger her life. As such a sac becomes more and more thin by accumulation of pus, it ruptures into some of the surrounding and adherent viscera, leading to more or less imperfect drainage. These cavities, when opening into the vagina, bladder, rectum, or intestines, may be the cause of frequent, or almost continuous, purulent discharge, and may continue for a great many years. The cavity is not emptied, for the reason that the opening usually takes place so high up as not to favor complete emptying, and the discharge is simply the overflow. Abdominal incision is sometimes objected to in such a case, for the reason that the sac may be drained through the vagina. Vaginal drainage, however, is objectionable for several reasons. In the first place, it is exceedingly difficult to keep the drain in place, to prevent its slipping out and its opening closing. Second, the tube or cavity cannot be rendered, and kept thoroughly antiseptic; there is, consequently, great danger of the extension of the inflammatory conditions. Third, we are not certain that in plunging a bistoury or trocar into the pelvis through the vagina we may not injure some of the adherent viscera, and it is only in those cases in which we can determine absolutely the collection of pus in Douglas' pouch that we are justified in making an incision. Fourth, we are not certain that the diseased cavity into which we open is the only one, as in cases of tubal abscess we may have a number of constrictions in the tube and the formation of several abscess cavities. Fifth, even securing complete drainage of the only pus cavity present, we still have the cavity, lined with a pyogenic membrane, subjected to irritation, and a source of danger to the patient subsequently. Sixth, the abdominal incision enables us more thoroughly to separate adhesions, to enucleate and remove the pus sac, and to subsequently irrigate the abdomen and establish drainage. Seventh, by the removal of these organs we are taking away tissues that are a source of continual danger, which by their destruction have been rendered useless, and

are, consequently, a source of danger rather than comfort to the patient. I would not have you understand that I recommend the wholesale removal of these organs for slight and almost microscopic diseases, for such is not the case. It is only when these tubes have become occluded, are distended with pus, or through leakage forming an irritating sac, that I should advise that the patient should be subjected to operation, for, as we have already said, oftentimes the seat of the disease is independent of the tubes. Thus, an ovarian hyperæmia or congestion of the ovaries, or an acute inflammation of the ovaries, may subside into sub-acute and later into chronic inflammation. With chronic inflammation of these organs, the hyaline membrane of the ovary becomes so firm and rigid that it does not readily rupture upon the maturing of a Graafian follicle, and this follicle goes on to the formation of a cyst; or, again, we may have as a result of inflammation maturing of a large number of follicles, involving, indeed, the whole of the cortical layer of the ovary, so that when the organ is inspected it is found that it is made up of a large number of small cysts; this condition is that which is known as cystic degeneration of the ovary, and gives rise, as a result of the reflex irritation, to increased and prolonged congestion of the uterus, manifested by excessive menstruation.

These cases may sometimes be benefited by dilating and curetting the uterus, or, again, by intra-uterine use of the positive pole, the galvanic current of a high intensity. Other cases are only relieved after the establishment of the menopause by the removal of the appendages. The condition manifests itself by marked reflex symptoms, affecting the various organs of the body. Thus the stomach is exceedingly irritable, leading, at times, to habitual daily vomiting. Section, in these cases, should only be resorted to after all other means have failed.

Cancer.—Cancer of the uterus is one of the conditions which, my observation has led me to find, is frequently neglected by the family physician. The natural disinclination of the patient to subject herself to a physical examination often leads the physician to fail in placing a proper appreciation upon the gravity of symptoms that may be present, and the patient has irregular, profuse, and even continuous menstruation, while she deludes herself with the view that she is undergoing change of life, and that this is a natural characteristic of that condition. Finally, with enfeebled health from the long continued drain, the certain amount of anxiety occasioned by increased pain, and an offensive discharge, her physician is driven to make an examination, when he finds that the disease has made such progress as to lead him to solicit additional aid. In these cases, most frequently, the disease has extended to such a degree that no radical procedure will prove available. Hemorrhage, whether at the menstrual period or during the interval, at any period in the life of the individual, but more particularly at or near the climacteric, should be considered a symptom of sufficient gravity to demand careful investigation of the patient. Malignant disease occurs most frequently between forty and fifty years of age; but it may occur at any time between twenty and ninety. The disease, in the majority of cases, involves the cervix, and usually makes itself known by increased or profuse menstruation; later an offensive, thin, watery discharge, the result of breaking-down tissue, takes place. Most frequently severe lancinating pain is present. Upon examination, the cervix will frequently be found to have undergone an ulceration of

one or other lip. The cervix will be covered with granulations; in some cases cauliflower growth, and in others an excavated or ulcerated surface. The examination, however carefully made with the finger, gives rise to rupture of the friable tissue and increased bleeding. Hemorrhage may occur from the body of the uterus. It is, however, not safe to arrive hastily at a conclusion that hemorrhage in such a case is due to malignant disease. The diagnosis should be determined only after the dilatation of the cavity of the uterus; the removal of the mass of malignant disease by the curette, and the exploration of the cavity by the finger. The importance of this care in diagnosis I can readily illustrate by a case of my own: Some two years ago I saw, with a physician in the city of Philadelphia, a patient who had had two or three children, was forty-five years of age, and had been suffering for some months with frequent and irregular hemorrhages. She suffered, also, from frequent and severe attacks of pain. The cervix was healthy, the body of the uterus was somewhat enlarged and rather hard; the introduction of the sound was followed by free bleeding; without further examination I was led to concur in the diagnosis of probable malignant disease of the body of the organ. The patient was subjected to extirpation of the uterus, and, upon subsequent investigation of the organ, it was found that the hemorrhage arose from a small, fibroid projecting into the uterine cavity. This patient recovered without any unpleasant symptoms, and has subsequently been in good health; but she is a living example of the importance of careful and thorough examination in all such cases. In cancer of the uterus, a variety of operative procedures have been suggested. In my opinion, however, the only justifiable procedure, where the disease is still limited to the uterus, whether slight or extensive in degree, is extirpation of the organ. This operation seems as clearly indicated where a portion of the uterus is involved as would be the entire extirpation of the mammary gland when one of its lobes was the seat of malignant disease.

Myomata.—The presence of uterine myomata oftentimes produces symptoms of such a marked and obscure character as to require careful and thorough examination; in many cases to demand operative interference for the relief of symptoms which would otherwise lead to the death of the patient. Of myomata involving the cavity of the organ, where they have become more or less separated from the uterus, forming an intra-uterine polypus, I have nothing to say, as such growths do not properly belong to the subject now under consideration. To submucous tumors, however, in which the separation between the growth and the uterus is as yet imperfect, or where the tumor which projects into the cavity of the uterus involves a part or the entire wall of the organ, in which the possibility or probability of early spontaneous extrusion is very slight, I would direct your attention. These are the cases in which hemorrhage is a very marked symptom. Hemorrhage, indeed, so great as to often lead to the blanching of the patient at each menstrual period, requiring the entire interval to recover from its effects. The growth is not sufficiently separated from the uterus to permit of its ready extraction through the uterine cavity, the dilatation of the cervix, and the manipulation necessary to enucleate such a mass, and the subsequent inflammatory changes taking place in the uterus are exceedingly dangerous to the patient. I have recently seen two such cases, in one of which the enucleation could not be avoided on account of

the fact that the tumor had already undergone gangrene, and it was necessary to remove it. This patient died, a few days later, from septic symptoms. In another patient who was operated upon, by the enucleation of the mass a diphtheritic exudation took place from the whole surface, the cavity of the uterus, the cervix, and upon its external surface, and the interstices of the vagina. This patient also succumbed. These are the cases for which electricity has been so highly vaunted. The most, however, that can be accomplished by electricity in such cases, is the relief of the symptoms, although much more has been claimed. Dr. H. R. Bigelow, who has been a constant attendant upon the clinics of Apostoli, who has written a book setting forth Apostoli's work, in a personal interview informed me that he had not seen a single tumor vanish under the use of electricity: all that was accomplished was the relief of the symptoms. In many cases it is found that later there is a return of hemorrhage, due to subsequent degeneration of the mucous membrane covering the surface of the growth. The application of electricity is not always free from danger. In those cases in which the uterus is not sufficiently high up to permit of supra-vaginal hysterectomy, the operation for the removal of the appendages will bring about a cessation of the menstruation, and the arrest of uterine growths.

To the conditions already named may be added pregnancy with deformed pelvis, accumulation of gall stones in the gall bladder, and tubercular peritonitis, in which the physician is justified in advising an operation. There are, however, other conditions in which the obligations upon him to do justice to his patient requires that he should not only advise, but urge, operative interference. Such conditions as appendicitis, intestinal obstruction, suppurative peritonitis, external and internal traumatism, and ectopic gestation.

Appendicitis.—By this term is meant an inflammation which has been formerly known under the terms typhlitis and peri-typhlitis. It is an inflammation arising from the retention in the appendix veriformis of hardened, inspissated fecal matter, grape seeds, shells of oysters, pins, and other foreign bodies, which have been found in this portion of the intestine. All cases of inflammation in this region are necessarily urgent. We may find a patient with a history of considerable pain, tenderness, slight elevation of temperature, in which the trouble is a simple one of inflammation, and subsides by resolution, without the involvement of suppuration or perforation. In those cases, however, in which the symptoms are markedly acute, in which pain is intensely severe—the patient having to be kept under the influence of an anodyne—in which the temperature is high, the pulse rapid, symptoms of developing peritonitis occurring early, prompt interference should take place. To rapidly knock down such a patient by large doses of opium, and thus attempt to dam up a structure which has already ruptured, is a bad treatment. The fate of such a patient is usually decided within forty-eight hours, and if neglected will, in the majority of cases, terminate fatally. While it is true that, under the influence of opiates, some few cases may survive, it is just as true that such a plan of treatment, in the majority of cases, will prove fatal.

In the latter part of June I was called to a neighboring city to see a physician with the following history: During the past year he had consulted a number of prominent physicians for obscure pain felt in the right side of the abdomen. These gentlemen

had given a variety of diagnoses, some believing that he was hypochondriacal. On the evening of June 14 he took a dose of compound cathartic pills. The next night he was taken with violent pain in the right side, extending down the genito-crural nerve, attended with pain in the head of the penis, and retraction of the corresponding testicle. These symptoms, with the pain, led to the diagnosis, on the part of his physicians, of impacted calculus. Large and repeated doses of morphine were given, and required, to relieve him of the agonizing pain. Soon symptoms of peritonitis developed, and when I saw him, on the morning of the 19th, the abdomen was very greatly distended, was exceedingly tender, the extremities cold, constant vomiting, breathing irregular, and all symptoms indicating speedy dissolution. The gravity of his case was made known to him, and the very slight probability that an operation would relieve him. He, however, desired that the operation should be done. The abdomen was incised and found filled with pus and liquid feces, and the rupture of the end of an exceedingly patulous appendix, which presented a number of concretions. There had been no gluing up of the tissues about the appendix forming a sac, which made it evident that the rupture had been a sudden one, and had permitted the subsequent leakage from the intestinal tract. It is unnecessary to say that this patient died a few hours later.

Some years ago I saw a young gentleman with the premonitory symptoms of the development of appendicitis. He was at once placed in bed, leeches applied over the abdomen, opiates given, and he was apparently progressing favorably. On the eighth day, with all the abnormal symptoms subsiding, I gave the family a very hopeful prognosis, but was recalled to the patient early the following morning, when I was informed that he had been taken in the night with violent pain. At the time I saw him he was in a state of collapse, and died a few hours later. Upon opening the abdomen, it was found that the appendix had been shut off from the general abdominal cavity by adhesions, and that the ulceration had opened an artery, hemorrhage from which had ruptured the plastic barriers, and permitted blood and pus to enter the general peritoneal cavity.

In many of these cases, particularly where an abscess cavity has been formed, the proper plan of procedure is not to attempt too much. Thus, in a case which came under my observation during the last year, a young woman had had inflammation for four days, the pus cavity was distinctly defined on the right side, incision was made over the point of greatest prominence, when half a pint of pus was evacuated. Calculi were found at the bottom of this cavity. The pus was thoroughly washed out, and the appendix raised up, ligated and removed. In doing so the abdominal cavity was opened. Notwithstanding a drainage tube was inserted, this patient subsequently died with peritonitis. Had we been content with simply emptying the pus cavity and drainage, leaving the condition of the appendix for a secondary operation, the chances for our patient would have been greatly increased.

The pus cavity may sometimes be found situated posteriorly to the peritoneum; that is, the rupture has taken place behind the meso-colon or peritoneum, forming an abscess. Where this situation of the abscess has been determined by an exploratory incision, the treatment should be to reach the abscess, from the lateral surface behind the peritoneum, and introduce a drainage tube, by which it can be evacuated. In this way, it is true, two incisions will have

been made; but we are compensated by escape from the danger of soiling the peritoneal cavity by the entrance into it of this exceedingly offensive material.

Obstruction.—The symptoms of intestinal obstruction are readily recognized. In many cases we may be able to determine the point of obstruction, as in an inguinal, femoral, or umbilical hernia. We may, however, have obstruction, as marked, the result of fibrous bands, intussusception or volvulus. Obstruction can usually be indicated by obstinate vomiting, until stercoraceous material appears. The presence of stercoraceous vomiting should be considered as an absolute indication for prompt operative interference in cases of hernia. Attempts are usually made at its reduction by taxis. These efforts should not, however, be long continued or repeatedly made. The patient undergoes far less danger from incision and enlarging of the seat of stricture, than he would from repeated efforts at the reduction of the gut.

Suppurative Peritonitis.—The presence of pus within the peritoneal cavity should be considered always as an indication for prompt opening and evacuation. The evacuation here is as important, indeed, even more important, possibly, than in any other portion of the body. In the peritoneum we have a large secreting and absorbing surface in close proximity to great sympathetic nerve centers, consequently the presence of collections of pus in this cavity is of the greatest danger. Pus may be suspected in conditions in which we have inflammation of the tubes, of the appendix, or in which some traumatic injury has been received. Not unfrequently in the performance of abdominal incision, particularly where a drainage tube has not been used, where it would have been indicated, symptoms of suppuration occur, we often have it following septic inflammation during convalescence with pregnancy. It is usually indicated by irregular temperature, recurring chills, frequent and profuse perspiration. The temperature is usually high. It is important, however, to remember that we may have suppurative peritonitis of a low virulent character, with temperature but slightly above normal. It is also unnecessary to suppose that its presence will be indicated by severe pain, or even tenderness. I remember, during my sojourn as a resident in the Philadelphia Hospital, that a patient in the ward could be kneaded over the abdomen without expressing any evidence of pain or distress, and yet, upon a subsequent autopsy, it was found that the abdomen contained over a quart of pus. In all cases in which the presence of pus is suspected, the abdomen should be opened, the cavity thoroughly irrigated, and drainage instituted. In many cases, particularly if the patient is depressed, it is better to content ourselves with simple irrigation and drainage, letting the condition, from which the suppuration arose, remain for subsequent consideration, for if we proceed to the completion of the operation for the radical cure of the case, we may find the patient has been so exhausted by the operation that she is unable to rally. In such a case it may be necessary to use more than one drainage tube. It depends entirely on the quantity and character of the purulent collection.

Traumatism.—Injuries of the abdominal viscera may be divided into those with, and without, an external opening.

The wisdom of opening the abdomen when its cavity has been opened by a gun-shot injury or stab wound is now but rarely questioned. The unfortunate murderous injury of President Garfield, did much to direct the attention of the world to the usually hopeless character of these accidents when left to

nature. In the discussion of Garfield's case, Sims wrote a paper, advocating abdominal section in every case in which it was suspected that a projectile had entered the cavity. This paper was widely discussed and has born fruit. In this field of work, the greatest progress has been achieved by American surgeons. Kinloch, of North Carolina, in 1881, undoubtedly did the first operation for gun-shot injury. One of the most remarkable operations was that of W. T. Bull, of New York, when no less than seven intestinal wounds were found and closed and the patient recovered. To be successful, operations should be prompt, the injured intestines sutured or resected, the blood and fecal matter washed out of the abdomen and a drainage tube inserted. If the case has been neglected and peritonitis has developed, it is unwise to tear up adhesions, for the fresh traumatism induced by efforts to find and suture injuries will lead to death from shock. In penetration of the cavity by a stab wound, enlarging the opening, suturing viscera where injured, otherwise irrigation and drainage are absolutely indicated.

Of traumatism without external injury the following affords a valuable lesson: A man forty-two years of age, on a Monday of last summer, was kicked in the belly by a horse, while bringing it in a car from Sellersville to Philadelphia. He lay five hours unattended. In the city, he was taken to the home of his sister. The physician called placed him upon opium to relieve him of the pain. The symptoms seeming grave, later another physician was called, who, believing in the later views of peritonitis and its treatment, administered salines freely. I saw the patient Friday night, five days after the injury. He was then tympanitic, pulse frequent and feeble, temperature about 102°, constant vomiting and wrenching, not marked abdominal tenderness. Believing there had been a possible rupture of the intestine, I advised section, which was done by lamplight immediately. An incision was made over the point of injury. When the peritoneum was opened there was a discharge of pus and liquid feces. The first coil of intestine drawn up presented an opening into which the thumb could be passed. The opening was sutured, the cavity irrigated, and a drainage tube inserted. The patient died the following day. The argument I would make from this case would be, that in every violent blow upon the abdomen, open and determine, certainly, the absence of internal rupture.

Ectopic Gestation.—This subject has been extensively discussed in the literature during the last few years, and is a prolific field for cultivation. The advocates of tubal pregnancy, being the most frequent form, are unquestionably correct, although we believe that the ovum may also develop in the ovary and abdominal cavity. Tubal pregnancy ruptures generally by the thirteenth week, though it may occur as early as the third. The danger from rupture is dependent upon its site. If tubal, and rupture takes place into the peritoneal cavity, the patient may die at once from shock, or later from hemorrhage. If rupture opens into the broad ligament a hæmatocele may result, or the ovum may continue to develop and the foetus reach full term. There is nothing about the early stage of ectopic gestation to indicate its true character. The patient may suppose herself normally pregnant, and her first warning of danger is pain in the side and pelvis indicating a partial or complete rupture. Electricity has been warmly advocated, but unfortunately rupture has occurred, in the majority of cases, before we have an opportunity to examine; before, indeed, any indication to examine has warned

us. The agent is not certain, for in many cases the life of the foetus may be resistant to its effects. A case of ectopic gestation, in our city, was treated for some time by faradization and galvanization, but without effect upon the growth. Later the tube ruptured and operation had to be done at once to save life. In some cases of rupture, the symptoms are obscure, and we must operate upon general principles. May 13, 1890, I was called to see a patient who was about forty years old, the mother of twelve children, who had had a miscarriage eight months before. She had menstruated some five weeks since. The night before we saw her she went out to an entertainment and was taken with violent pain in the side, and faintness. She fainted several times during the night. When seen she was bloodless, pulse feeble and she was unable to raise her head from the bed. The abdomen was large, pendulous, and gave negative symptoms upon vaginal and abdominal palpation. Believing that she was suffering from internal hemorrhage, an incision was made. Two quarts of liquid and clotted blood were found in the cavity. In the left tube a rupture of a cyst the size of a cherry had taken place, and from it the hemorrhage resulted. The tube was removed, irrigation and drainage used. The patient had an uninterrupted convalescence. We would urge immediate operation if rupture has occurred; every moment is valuable. The condition of the patient may be such as to appear to render it advisable to recover the patient from shock before operating, but you have a bleeding vessel which is draining out force as fast as you can replace it, hence the indication is, wait for nothing, but cut down and secure the vessel. When this is done irrigation with hot water or hot salt solution will be the best means for recovering the patient. I am aware, gentlemen, that I have treated these subjects superficially; that to have dealt with any of them fully would have more than occupied the compass of this paper; that this is a large field of abdominal surgery, as surgical diseases of the kidneys, liver, stomach and bladder untouched, but should I essay to do more, both my time and your patience would fail me. I have endeavored to set forth, that while the physician has time to choose place and operator, for the majority of conditions, yet there are other cases, in which it is necessary for the welfare of the individual that an operation should be performed with the least possible delay. In the practice of abdominal surgery, the special surgeon has a very extensive paraphernalia, which must necessarily be modified by one who proposes to do only occasional operations. For many emergency operations, the ordinary pocket case can be made to serve the needs of the surgeon. Indeed, Cæsarian section has been performed with a razor, and far more successfully performed, according to Harris' report of mortality, when done by the horn of cattle than when done by the obstetric surgeon. This, however, is due to the fact of the selection of cases. The persons who have been operated upon and delivered by the horn of cattle are people in a healthy condition. Those operated upon by the obstetric surgeon had undergone long-continued labor, repeated efforts at delivery by the forceps or version, and possible, even craniotomy. When these various means had failed, the patient was subjected to Cæsarian section.

Great care, in all operations, should be observed, as to what goes into the abdominal cavity, consequently, special attention should be used in regard to the sponges and ligatures. Ligatures should consist of pure silk and should be prepared by boiling,

and afterwards be kept in alcohol until used. Sponges of firm texture should have been pounded until sand, shell and lime are thoroughly broken up, soaked in a solution of muriatic acid, and subsequently washed with green soap until thoroughly clean, then placed in a 5 per cent. solution of carbolic acid. If suitable sponges are not at hand, absorbant cotton wrapped in cheese cloth, which has been previously boiled in an alkaline solution, will serve well in the place of the sponges. For irrigation of the cavity, an ordinary pitcher filled with water that has been boiled will answer every purpose. As a preliminary to the operation, the instruments, the patient, the hands of the operator and assistants, should all be as clean as soap and water can make them. If this be thoroughly and conscientiously practised, there is no need for a chemical antiseptic. Where, however, there is doubt, it is well to have a solution of the acid sublimate at hand into which the hands of the operator and assistants can be placed from time to time. The wound should be surrounded by towels or cloths wrung out of such a solution, so that the instruments, ligatures and sutures may not come in contact with anything by which they will convey septic material into the cavity of the abdomen, or into the wound. In the absence of a glass drainage tube a rope of ordinary candle wicking, carefully cleansed by boiling, serves an excellent purpose.

The Polyclinic.

COOPER HOSPITAL, NOTES.

OPERATION FOR LACERATION OF THE CERVIX UTERI.

BY placing a circular layer of antiseptic cotton around the cervix after an operation for its repair, a support will be given to it during the healing process, and protection, to the edges of the wound, from the vaginal walls.—*Godfrey.*

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Reported by J. E. TAYLOR, M.D.

A MAN, aged thirty-one years, was presented at the medical clinic giving this history: Previous health good; about one year ago began to have neuralgic pains in the head and chest; nine months ago his hands and feet began to perspire profusely, followed by numbness; he was unable to coördinate the fingers; no history of swelling of the joints; has had momentary spells of dimness of vision; marked capillary injection; the patient breaks out in irregular rashes, erythematous in type; deficient electro-muscular contractility; absent reflexes; no ankle-clonus; the temperature was normal. The lesion in this case—evidently that of the nervous system—was believed to be peripheral rather than central. The patient was prescribed for as follows: R.—Syrupi hypophosphit. comp., fʒj., three times a day; hydrobromate of hyoscine, gr. $\frac{1}{100}$ ter die; and for the sweating of the hands and feet:

R.—Acidi salicylici..... ʒj.
Pulv. cretæ,
Pulv. aromatici..... āā ʒss.

Prof. Bartholow directs in muscular rheumatism that milk and all saccharine substances shall be excluded from the diet. See that the liver is acting properly, and give salol, gr. i, three times daily.

A boy, fifteen years of age, with the history of epileptiform seizures, was placed upon:

R.—Sodii iodidi..... gr. x.
Sodii bromidi..... gr. xv.
Tinct. cinchonæ comp..... f3j.
Aquæ menthæ pip..... f3ij.

M.—S. To be given three times a day.

A girl, seventeen years old, was presented at the clinic with a history of menstruation at fifteen years; regular until two months ago, when she began to lose flesh, and become very anemic; the eyes presented a pearly appearance; she complained of colicky pains in the abdomen. The cause of the trouble was found to be round worms and was treated with:

R.—Santonini..... gr. j.
Hydrargyri chlor. mitis..... gr. ij.
Sacchari lactis..... gr. x.

M.—Sig. Take morning and evening.

And,

R.—Ferri et potassii tartratis..... gr. v.
Sig. Ter die.

For a woman, thirty-four years of age, in whom menstruation had ceased, but who was otherwise in good health, and well nourished, Prof. Parvin ordered a pill made up of:

R.—Ferri sulphatis exsicc.,
Terebinthinæ albæ..... āā gr. j.
Pulv. aloes ext..... gr. ½.

M.—Sig. Three times daily.

For a patient suffering from disorder of the menstrual function, and obstinately constipated, Prof. Bartholow prescribed as follows:

R.—Ext. physostigmatis,
" nucis vomicæ,
" belladonnæ,
Aloin..... āā gr. ¼.

M.—S. Ft. in pil.

Also:

R.—Liq. potassii arsenitis..... f3j.
Massæ ferri carbonatis..... 3ij.
Glycerini..... f3j.
Aquæ..... f3ij.

M.—S. A teaspoonful three times a day.

For a case of fatty degeneration of the heart, the patient giving the symptoms of pain, and burning sensation in the præcordial region; shortness of breath on exertion; with occasional attacks of vertigo; very feeble pulse; the patient had had rheumatism; he was placed on the sulphate of strychnine, gr. $\frac{1}{60}$, ter die.

Dr. J. Solis-Cohen uses the following after the application of the electro-cautery:

R.—Sodii bicarb,
Aquæ..... āā 3j.

Which has the effect of relieving the pain and burning almost immediately.

In a case of syphilitic eruption, the patient being considerably anæmic, Dr. Wirgman ordered that a drachm of the oleate of mercury be rubbed in twice daily, and gave the following prescription internally:

R.—Quinina sulph..... gr. ij.
Tr. ferri chloridi..... gtt. xx.
Aquæ aurantij corticis..... f3j.

M.—S. To be taken through a tube, three times a day.

In a case of abscess of the neck occurring in a child nine months old, Prof. Keen, after evacuating the contents of the abscess, thoroughly scraped out the cavity; he then washed it out with the 1-1000 bi-chloride solution, following this with warm boiled water; a method pursued in all cases where there is danger of the bi-chloride solution remaining and producing constitutional effects.

For a case of eczema, Dr. Stelwagon prescribed as follows:

R.—Acidi salicylici..... gr. x.
Pulv. amyli..... 3ij.
Zinci oxidi..... 3ij.
Petrolati..... 3j.

Or:

R.—Ung. petrolei..... 3j.
Adipis..... 3j.

M.—S. Apply locally.

AN EXPERIENCE WITH SEWER GAS.

A FAMILY came into the city from a neighboring town, and took lodgings on a fashionable street. At once they began to have illness, of that annoying, anomalous sort, to which it is difficult to give a name. Eruptions of papules appeared, with nausea, anorexia, an anemic look, nervousness and headaches. Then the whole family went through the roseola. This was hardly past when a severe conjunctivitis that they denominated "pink-eye," went the rounds. I then instructed the lady to stop up the overflow holes in the stationary wash-basins, and to drop a little sanitas disinfectant into each basin, with a little water, on retiring at night. The effect was so good that during the two weeks that the sanitas bottle lasted there was no new illness, and the health of all commenced to improve. When the disinfectant ran out the trouble began again. The girls commenced to look haggard in the mornings, the youngest child showed symptoms of an approaching chorea, with periodic chills and fever, unaffected by cinchona, and as the cause of the illness was evidently local, I sent the family out to their country seat.

The moral of this is: If people will persist in occupying bed-rooms containing that death-trap known as the stationary wash-stand, let them keep a little sanitas in the basin whenever it is not in use.

—Waugh.

LIEBREICH'S TUBERCULOSIS REMEDY.—At the Society for Inner Medicine, Dr. Liebreich delivered an address on the subject of his remedy for tuberculosis, and gave particulars as to the general effect of the treatment. The result of injection, he believed, though he was unable as yet to afford positive proof on this point, was to cause an increased transfusion of serum, by which badly nourished cells received better nourishment, or the bacilli were destroyed. In his experiments on human beings he had most carefully commenced with a dose of one-fiftieth part of a deci-millgrm., gradually increasing it to six deci-millgrms., which was, in his opinion, the extreme quantity which could be injected with safety, but latterly he had limited the dose to two deci-millgrms., in most cases. The pathology, he thought, was unimportant so long as the result was satisfactory. Dr. Liebreich's explanations were not altogether favorably received, and it is alleged by some medical men that there is a danger of the injection causing hematuria.

Dr. Heinmann stated that since January 30, he had treated twenty-seven patients with Dr. Liebreich's remedy, eleven of whom were suffering from tuberculosis of the worst form, and six from chronic disease of the larynx. The effects in all these cases had been most favorable. He produced one of his patients, who, when first taken under treatment, was almost voiceless, but could now sing clearly.

Prof. Fraenkel also showed a number of patients who had been inoculated with the cantharidate of potash, and stated that in fifteen cases favorable results had been obtained.—*Med. Press.*

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PEROXIDE OF HYDROGEN.

THIS agent is attracting so much attention of late, that it may be well to recall the attention of the profession to the observations made previous to 1860 by Benjamin Ward Richardson, and published in that year. (*Asclepiad.*) The conclusions he then reached were as follows:

1. The peroxide quickens oxidation, increases secretion, arterializes blood, and hastens the decomposition of decomposing animal tissues.

2. In combination with blood it restores the power of contraction to muscles recently dead, and yet calms muscular irritability.

3. It reduces muscular rigidity before and after death.

4. In poisoning by narcotics and by alkaloids it might, with advantage, be introduced into the blood by injection.

5. In tetanus its use is rational, as tetanic rigidity is relaxed by its presence in muscle.

6. In typhus, when death occurs from asphyxia beginning in the blood, it might be employed as an oxygenator.

7. It should prove useful as an internal and external remedy for cancer.

Two years later Dr. Richardson reported the results of its use in 223 cases of disease. These were as follows:

1. In diabetes the peroxide reduced the specific gravity of the urine and increased the quantity.

2. It relieved chronic and subacute rheumatism.

3. It relieved dyspnoea from valvular disease with pulmonary congestion.

4. It improved digestion in mesenteric disease and in jaundice.

5. In pertussis its effect for good was remarkable.

6. In chronic bronchitis it lessened dyspnoea and rendered the sputa less tough.

7. It was painful and useless in chronic laryngitis.

8. It favored the action of iron in anemia but was useless alone.

9. In the first stages of phthisis it improved digestion and in the later stages gave wonderful relief to the breathlessness and oppression, assisting oxidation and acting like opium, but without narcotism.

10. In free and repeated doses it produced salivation; and might be substituted for mercury in syphilis.

Since the time at which these conclusions were published, Dr. Richardson has continued his work with peroxide, and has now accumulated material for a volume, which we are promised in the near future.

BONE-GRAFTING.

IN the *Memphis Medical Monthly* the results of Dr. Phelps' late experiment are given. The case was one of ununited fracture of the tibia, resulting from an unsuccessful attempt to remedy an angulation in early childhood. After the osteotomy the bones had been wired twice, bone chips had been engrafted, and Thomas' method of hammering, damming, etc., had been tried, but failure ensued. This last attempt at saving the limb was made by Dr. Phelps, who endeavored to introduce a section of bone from a dog's leg, between the fragments of the boy's fractured tibia. That part of the dog's bone was taken that contained the nutrient artery. The boy's bone was freshened, and the dog's bone, still attached to the animal, introduced, and boy and dog securely fastened together. It was unfortunate that perfect immobility could not be secured, as after eleven days the shrinking of the animal allowed such a degree of motion that the connection between the graft and the animal had to be severed. The result is described as follows:

"As the graft was trimmed down to the parts still attached, a fresh oozing of blood took place, through the graft, which demonstrated the fact that union had taken place and that circulation had been established between the patient and the dog.

"The wound was dressed and the graft examined daily. At the end of five weeks it was discovered that the bone showed no further sign of uniting; and, desiring to give the boy every chance for union of the fracture, it was removed. The rods, also, were removed, and the ends of the patient's bones placed firmly together, hoping to secure union because of the stimulation produced by the graft. The graft-bone was irregularly covered with a new growth of bone, thus proving, I believe, that an effort had been made to unite the fracture.

"This was the result of eleven days' contact, whereas at least thirty days are required for bony union to take place.

"The operation had a twofold interest: First, to establish the fact that large masses of soft part could be transplanted from an animal to man; second, to unite an ununited fracture by a second bone from the dog. We have succeeded in demonstrating the first proposition, but have partially failed in the other, in so far as the actual growing of the bone into place is concerned. This was due entirely to a defect in the dressings. This principle of transplantation established, means much to humanity; its application will

be found useful in many cases which now defy the best efforts of the most skilful surgeons in the world.

"Among the cases suitable for the application of the principle are those cases of fracture which resist all efforts for their union, and which must necessarily result in amputation; ulcers of a particular class which can be cured by no means known to surgery; scalps ripped from the heads of factory girls by machinery. Months and often years have been taken to skin-graft back the scalp to cover the skull, and numerous friends have been flayed to supply the material."

It must be a matter of great regret to all that Dr. Phelps' bold operation did not prove successful. But he has done much towards showing its feasibility; and better results may follow the next trial.

Annotations.

WE recently received a communication from a drug firm requesting us to advertise free of charge the asserted fact that it had Koch's lymph on sale. The item found a congenial home in the waste basket. Recently our attention has been again brought to the matter by a letter from a subscriber, who states that he has purchased two bottles of "Tuberculin," and failed to get any appreciable effects from either. We desire to state our conviction that none of Koch's lymph can be purchased in America; and if physicians are swindled by persons desiring to sell an imitation, it will not be through the aid of THE TIMES AND REGISTER. If our readers desire to make some trial of tubercular lymph, we advise them to apply to Dr. Dixon, at the Academy of Natural Sciences.

OCCASIONALLY the Doctor is induced to put pen to paper, and give the world of readers a taste of his matchless skill as a *raconteur*. Very rarely, for your true doctor likes to hide his light under the bushel that holds his few intimates; all his professional instincts revolting at publicity. But when he does come out of his shell, who can talk so charmingly? His opportunities for the study of human nature in all phases are matchless; his training compels him to be observant. For all this, his work in general literature is small. Holmes gave us two novels so good that it is a standing grievance that he wrote no more. Mitchell's character-dissections are not very agreeable reading; and Warren's doleful reminiscences are enough to reconcile a man to any fate. Narrative is a field in which the doctor should shine; and that he would, if he took the trouble, is pleasantly illustrated by a little pen sketch before us, by Dr. Edward Cass. It is simply an account of a visit to New York during the celebration of the Washington Centennial, described in an easy style, yet so as to present the picture to his readers as vividly as if they were present with him.

DR. MORE MADDEN makes an emphatic protest against massage of the genital organs, as advocated at the Rotunda Hospital, Dublin; and if the method of massage in practice be as described in the *Medical Press*, Dr. More Madden cannot make his protest too emphatic.

THE *Hahnemannian Monthly* goes back on his principles in a way that should cause his instant expulsion from the homœopathic ranks. He is pledged to the doctrine of infinitesimal doses, but the hugeness of the dose of sulphur he pours out on our devoted head would make Hahnemann weep. One would think, to read his rather incoherent ravings, that he actually expected the Legislature to pass the bill placing medical education in this State in the hands of the homœopathists and eclectics.

In one particular we will comply with the wishes of our esteemed contemporary, and no longer employ the designation "regular" to distinguish the medical profession from the sectarians. The necessity, however, still exists for such a distinction; and for want of any other, we will be compelled in future to speak of ourselves simply as physicians. It is true, if we say "physicians, eclectics and homœopathists," there is an implied denial of the latter's right to be considered physicians, but we see no other alternative. As for the appellation of "allopathic," it was invented by homœopathists to propagate a slander; it has never been accepted by the profession because the designation is a lying one. There are no allopathists; and if there were, they would not belong to the medical profession, but simply form a sect like the homœopathists.

THE *American Lancet* indulges in some caustic reflections upon the management of Philadelphia medical journals, and objects generally to all attempts to emerge from the well-worn ruts. When advice is given, it is a pretty safe rule to judge of its value by the success of the giver; and, if the latter has not been marked, the advice should be mistrusted. The *Lancet* is presented in excellent form by its publishers, who seem to have made it their pet; it is printed upon the finest paper, with good typography, etc. Under Dr. Connor's able management it has succeeded in seventeen years in finding about five hundred men who appreciate it well enough to buy and pay for it. Dr. Taylor, without any such backing from a rich and powerful firm of manufacturers, in six years builds the subscription list of his *Medical World* up to twenty thousand. Dr. Connor publishes what interests himself; Dr. Taylor what his readers need. Five hundred men agree with the first in his idea of what a medical journal should be. Twenty thousand agree with Dr. Taylor. Without any other backing than its own intrinsic worth, the *Lancet* would have lasted as long as its editor's purse; still, its editor knows all about how other people ought to conduct their journals; while Dr. Taylor, who has won such a magnificent endorsement from the medical profession, has not a word of advice to proffer to his brother editors.

THE *Georgia Eclectic Medical Journal* devotes an editorial to the discussion of our query, as to whether there is any real and valid reason for the existence of that sect as a separate school. It would simplify matters greatly if the representatives of eclecticism would come out and state in plain language the points in which they differ from us. We gather from Dr. Goss' editorial that one of these points of difference is in the eclectics' use of specifics. This is due to the publication of Scudder's work on specific medication. We have examined this book, and find nothing in it that should compel the medical profession to ostracize the author; nor is there anything

in the constitution of the American Medical Association to forbid Dr. Goss following Scudder's system if he feels like it.

The next point made by Dr. Goss is that the eclectic practice is better than the old routine system of prescribing for the name of a disease. This appears to contradict the specific theory, but we will assume that it does not. Still, we find no trace of any law that compels the physician to prescribe by routine, or at the name of a disease, or to prescribe at all. This, then, cannot be the all-important reason for our eclectic friends staying outside.

We come then to Dr. Goss' third point, and believe that here is the gist of the matter: Eclectics are not admitted to our societies or to consultations with physicians. So that the difference is purely political, and not in any sense one of belief. The eclectic can be as eclectic, as specific, as he pleases, and still retain his membership in the American Medical Association, if he is once admitted. Eclecticism would have no excuse for existence, if our doors were opened to those eclectics who are really qualified to practise medicine.

Letters to the Editor.

DR. TRENHOLME'S PRIORITY.

IN your issue of March 14, Dr. E. H. Trenholme complains that I have done him an injustice in crediting Hegar and Tait with priority in removal of the ovaries for the symptomatic cure of bleeding fibroids.

I regret exceedingly that the mistake occurred. After I had read the proof of my paper (The Treatment of Fibroid Tumors of the Uterus, *TIMES AND REGISTER*, November 22, 1890), I came across evidence which I considered sufficient to establish the claim of Dr. Trenholme's priority to the operation for the purpose mentioned, and but for press of other affairs should ere this have made the correction. You are quite right in suggesting that I would not knowingly overlook the just claim of a fellow physician.

I may also mention that Dr. Trenholme's priority is recognized in the last edition (1890) of "Schroeder's Diseases of the Female Sexual Organs," as well as by "Martin, on Diseases of Women," "Cushing's Translation," 1890, p. 529.

I trust that in this note I may make at least partial reparation for an oversight.

GEORGE H. ROHÉ.

BALTIMORE, MARCH 18, 1891.

SCREW WORMS.

IN your issue of March 7, I see an article from Dr. R. W. Seary, Burnette, La., with head lines, Maggots or Screw Worms in the Human Nose, and have at various times seen articles written on the subject, with the different modes of treatment, applications, etc. In this State I suppose every physician with any experience has had the screw worm to contend with in the human subject. The specific for the death of these pests is calomel. Apply it any way you can, but I prefer the dry powder.

I have had numbers of cases to treat in the nose, ear, and wounds of various kinds where there is any blood on the surface. From the time the egg is laid to the time it hatches varies sometimes twelve, and often twenty-four, hours. In the warm months in

Texas, and especially in the months of September and October, all stock has to be watched closely on account of the worm.

It is a universal thing for every family to keep calomel in the house for this purpose. Some use chloroform; others, a proprietary medicine known as chrysilic ointment, for their stock; and I have tried all, with the verdict that calomel is far the superior.

There is considerable difference between the maggot and screw worm. The maggot will live in dead tissue, but the screw worm will not. I have taken the screw worms from the live subject and put them in dead tissue (decomposed), and they would always *wiggle out*; the maggot is at home in decomposed animal matter. The fly that lays the egg is very different from the screw worm fly; What I want to impress on the profession in this article is to use calomel topically applied. There is no danger of absorption enough to mercurialize.

J. H. PAYNE, M.D.

HOLLAND, TEXAS.

FIRST ANNUAL REPORT OF THE NEW YORK PASTEUR INSTITUTE.

DR. PAUL GIBIER, Director of the New York Pasteur Institute, writes to inform us of the results of the preventive inoculations against hydrophobia performed at this Institute during the first year of its existence (February 18, 1890, to February 18, 1891). 828 persons having been bitten by dogs or cats, came to be treated. These patients may be divided in two categories:

1. For 643 of these persons it was demonstrated that the animals which attacked them were not mad. Consequently the patients were sent back after having had their wounds attended, during the proper length of time, when it was necessary.

2. In 185 cases the anti-hydrophobic treatment was applied, hydrophobia of the animals which inflicted bites having been evidenced clinically, or by the inoculation in the laboratory, and in many cases by the death of some other persons or animals bitten by the same dogs. No death caused by hydrophobia has been reported among the persons inoculated.

Indigents have been treated free of charge.

The persons treated were:

81 from New York.	2 from Ohio.
27 " New Jersey.	1 " Maine.
16 " Massachusetts.	1 " Arizona.
11 " Connecticut.	1 " Minnesota.
9 " Illinois.	1 " Iowa.
5 " Georgia.	1 " South Carolina.
5 " North Carolina.	1 " Nebraska.
5 " Pennsylvania.	1 " Rhode Island.
3 " Maryland.	1 " Arkansas.
3 " Missouri.	1 " Virginia.
2 " New Hampshire.	1 " Louisiana.
2 " Texas.	1 " Indian Territory.
2 " Kentucky.	1 " Ontario, Canada.

TRAPPING LUMBRICIDS.

ILATELY saw a curious and interesting specimen, which was to me entirely unique, and illustrated the wonderful fertility of resource at nature's command for ridding herself of a foreign body of a character that she thus far had perhaps not been compelled to engage with.

Dr. B. B. Adams, of Washington, D. C., as he showed the specimen to me in his office, said that he

had suddenly been called out some weeks before to attend a boy of three years of age, who had been unfortunate enough to swallow a small tin whistle. The whistle was one of those made of two circular pieces of tin, about an inch in diameter, attached by the edges, and containing a cavity which is from one eighth to one-quarter of an inch wide at the widest portion. Through the center of each plate is a hole having a diameter about equal to the distance between the plates at that point. The whistle, though lodged in the œsophagus, could not be extricated, so there was nothing to do but to push it down into the stomach. There it stayed for about three weeks, the child during that time having no appetite, taking but a small amount of liquid nourishment, and weakening so rapidly that gastrotomy seemed to be the only resource. At the end of that time the boy's appetite suddenly returned, and a few days afterward the whistle was passed *per anum*.

It did not come unattended, however, for fastened firmly in the central hole was a lumbricoid worm, of some five inches in length, half of it on one side of the whistle and half on the other. Where the worm took upon itself the duty of piloting the toy safely through the intricate way is a question, but probably at or near the pyloric orifice. From this incident those who love to discourse on the eternal fitness of things, and who believe that all existing things exist for good, may find food for argument in favor of the hitherto much condemned *ascaris lumbricoides*.

ERNEST B. SANGREE, M.D.

742 SOUTH FIFTEENTH STREET.

CINCINNATI CORRESPONDENCE.

CINCINNATI has just passed through the medical college commencement season, with one college still to hear from. The Ohio Medical College headed the list with its Seventy-second Annual Commencement, March 5. The graduates numbered ninety-four, and the prizes and medals were well distributed, showing the general standing of the class to be high. The internes for the coming year at the Cincinnati Hospital are: Drs. H. F. Kattenhorn, E. F. Landy and Jacob Wolf, all of Cincinnati; internes at the Good Samaritan Hospital, Drs. H. C. Buell, East Bloomfield, N. Y., Charles W. Newton, Marietta, O., Clarence Schoolfield, Dayton, Ky. The faculty prize for best final examination in all departments was awarded to Dr. H. F. Kattenhorn, Cincinnati. The valedictory address was delivered by Dr. James T. Whittaker, who held the large audience spellbound with his words of wit and wisdom, interesting alike to the class which he addressed and the assemblage who applauded as they listened. He deplored the lack of law to regulate the establishment of medical schools and teaching, which in this city represent every freak, fraud and frenzy of which the human mind is capable. Then the hospitals, which have been multiplied until there is one for every race, for every creed, for every sex, for every age, and at present rates there will soon be one for every disease and every doctor. He mentioned as founders of hospitals, medical schools, physicians, ministers of the Gospel, fashionable ladies, men who have made fortunes by questionable means as vending patent medicines, who

"Strive for life-long evil to atone
By building monuments in stone."

He severely condemned a charity hospital in this city, which begs from door to door so successfully that it sends annually \$60,000 to Europe. Yet its

boast is, that no medical student is admitted to its wards, and no case may be presented to a class. None are so blind as not to see, or so dull as not to know, that a case presented before a class of three hundred students means three hundred times as much benefit to suffering humanity as a case secluded in such a charity hospital.

He told the class that they might be born to greatness in the social scale; they might have it thrust upon them in politics, but they would have to achieve success in medicine, for there was no other way to reach it. He admonished them to work with a purpose. Purpose, persistence, patience furnish the power of concentration, and the fruits of concentration were what the world calls the work of genius. He told them they were fortunate in beginning their careers in the dawn of a new day. It is impossible not to recognize that the practice of medicine will soon be conducted upon entirely new principles. The recent discoveries with which the world yet rings, disclose principles which are more directly to address the cause of disease. In the most hopeless case which may confront you inspire your patients with hope,

"Strike him not dead with a denial,

But leave some glimmering of a doubtful hope."

He told the story of the siege of Lucknow when the besieged garrison waited, watched and prayed in vain for the sound of the bugles of the rescuing troops. The hush of danger was over all, death by cruel slaughter seemed at hand, when hark—the sound of the slogan in the far distance inspired hope anew in despairing hearts—gentlemen, in the darkest hour, listen for the slogan. God be with you. Good-by.

The alumni meeting of the Ohio College was largely attended. Dr. H. M. Thompson, of Circleville, O., class of 1841, delivered the opening address. Dr. Floyd S. Crego, of Buffalo, followed with an address on the progress in medicine, and the proceedings were closed with the class address by G. P. Johnston. Dr. J. J. Mullen, class of 1844, was elected president, and five vice-presidents selected from different classes.

The commencement exercises of the Cincinnati College of Medicine and Surgery were held at the Scottish Rite Cathedral, March 6. The class numbered twenty-four. Dr. R. C. Stockton Reed, the dean, read the annual report of the college for the year. Dr. Giles S. Mitchell delivered the faculty address, and Dr. Louis M. Schiel, as valedictorian, delivered the address of the class.

Pulte Medical College at its commencement at the Scottish Rite Cathedral, March 9, graduated a class of twenty-nine.

The Ohio College of Dental Surgery graduated a class of seventy-five, March 11, one of the largest classes this institution has ever sent forth. Dr. H. A. Smith, Dean of the Faculty, conferred the degrees. Dr. Clancy delivered an address, and Prof. Cassidy gave the faculty address.

Mississippi Valley Association of Dental Surgeons met March 11, in Cincinnati. This Association is the oldest one of its kind among dentists in the United States. The session lasted three days, ending with a grand banquet. The programme contained a number of interesting papers, opening with the president's address, by Dr. M. H. Fletcher, of Cincinnati, followed by papers from Dr. Eugene Talbot, of Chicago, an authority on abnormalities of the teeth, and others. The question box, voluntary essays, incidents of office practice, and exhibition of appliances were features of the meeting, as well as the carefully pre-

pared and well read papers from various well-known members of the Association.

The election of officers at a recent meeting of the Cincinnati Academy of Medicine, resulted as follows: President, Dr. Giles S. Mitchell; First Vice-President, Dr. George W. Ryan; Second Vice-President, Dr. Thad. A. Reamy; Recording Secretary, Dr. James M. French; Corresponding Secretary, Dr. E. S. McKee; Treasurer, Dr. Geo. E. Jones.

Dr. Thad. A. Reamy gave an elaborate dinner the evening of March 17, in honor of Dr. William H. Baker, of Boston, Professor in the Harvard School of Medicine, to twenty physicians of the city. Those present were Drs. W. W. Dawson, W. W. Seeley, William H. Taylor, A. W. Johnstone, Joseph Ransohoff, C. D. Palmer, E. S. McKee, Giles S. Mitchell, E. W. Mitchell, A. B. Isham, C. L. Bonnifield, J. M. Withrow, James G. Hyndman, G. W. Ryan, F. Forcheimer, and A. B. Richardson. The dinner and evening were thoroughly enjoyed by the participants.

The commencement of the Miami Medical College, held at the Odeon, April 1, ushered twenty-seven more doctors upon the world. Words of wisdom were uttered by the dean, Dr. William H. Taylor, and the class of 1891 made their exit amid the plaudits of a brilliant audience.

The commencement exercises of the College of Pharmacy, March 19, attracted a large audience. Twenty-four graduates took the degree of the college. The address on behalf of the Board of Trustees was delivered by William Rendigs, of the Cincinnati School Board. The degrees were conferred by Henry Wolde, Esq., and the faculty address delivered by Julius Eichberg, M.D., Ph.G. The faculty prize for best average in all branches was awarded to Miss Alice Braunsworth, of Muscatine, O.; faculty prize for best examination in all branches was received by R. W. Mitchell. The various prizes were gold medals, except in one instance, where a set of books was given. The exercises concluded with a grand banquet and a good time.

Book Notices.

TRANSACTIONS OF THE AMERICAN ORTHOPÆDIC ASSOCIATION. Fourth Session, 1890. Vol. III.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS. Vol. III. For the year 1890.

PROCEEDINGS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY. Vol. XI. Session of 1890. A. W. WATSON, M.D., Editor.

THE PHARMACOLOGY OF THE NEWER MATERIA MEDICA. Part X. December, '90, January, '91. Treats of Guarana, Strophanthus, Gurjun Balsam, Helianthella, Hoang-Nan, Hysterionica, Iron-Wood, Jaborandi, Jambu Assu, Jambu, Jatrophia Macrorrhiza, and Jequirity. Geo. S. Davis, publisher, Detroit.

The article on jaborandi speaks of its uses in many other affections, but says not a word as to its control over erysipelas.

PLAIN TALKS ON ELECTRICITY AND BATTERIES. With Therapeutic Index. For General Practitioners and Students of Medicine. By HORATIO R. BIGELOW, M.D., Philadelphia. P. Blakiston, Son & Co., 1012 Walnut street. 1891. 12 mo.; cloth; pp. 85.

Do you want a little primer on electricity, that can be stuck in the pocket and read in an odd half-hour;

that tells you about what batteries to buy, and what other apparatus goes with them, and what they are for? This and a host of useful, practical hints besides are contained in Bigelow's little booklet. Something to look over quickly, for the present, until time is available in which to consult the systematic treatises.

THE ASCLEPIAD. No. 29, Vol. VIII. Contents: On Peroxide of Hydrogen, a physical-medical research; Cold and Mortality; Opuscula Practica; John Hunter and the School of Hunterian Medicine; Devolution in Medicine, the Treatment of Disease by Infection; etc., etc.

There is an autotype taken from a portrait of John Hunter by Reynolds. It gives him a milder and more genial face than the engravings ordinarily seen, and less in harmony with his reputation. But what delightful reading is *The Asclepiad*. Dr. Richardson has an independent way of expressing himself, as a man who does his own thinking, and yet without a particle of the pugnacity of most men of his class. We would like to present our readers with the whole of his magazine, but prefer to advise them to obtain it for themselves.

RESEARCHES UPON RESPIRATION. Made in the Physiological Laboratory of Jefferson Medical College. By HENRY C. CHAPMAN, M.D., and ALBERT P. BRUBAKER, M.D. No. I. On the Consumption of Oxygen and the Production of Carbon Dioxide in Animals. Reprint from the Proceedings of the Academy of Natural Sciences, Philadelphia, January, 1891.

The importance of this inquiry will be at once apparent, when one reflects on its hygienic bearings. The practical application of ventilation depends upon the accuracy of such investigations. An approximation to accuracy was obtained by Regnault and Reiset; but their work was imperfect, in that it failed to take into account the exhalation of water from the animal. Drs. Chapman and Brubaker believe that they are the only experimenters who have ever compared the oxygen consumed with the amount absorbed, as determined by the carbon dioxide and water produced. The present paper gives a description of the Regnault-Reiset and the Voit apparatus, and the results of the author's experimentation with them. It was found that the rabbit consumes eight decigrams of oxygen and produces 1.1 gram of carbon dioxide hourly per kilogram of body-weight. Both were increased by the taking of food.

It will be news to many that such work as this, requiring the utmost delicacy and painstaking to insure accuracy, is being carried on in a Philadelphia laboratory.

HEREDITY, HEALTH, AND PERSONAL BEAUTY. By JOHN V. SHOEMAKER, M.D. Philadelphia and London: F. A. Davis, publisher. Cloth, 8vo.; pp., 422.

These are, assuredly, subjects of interest to the physician, whose fair patients will not be deficient in gratitude to him whose advice shows them how to become fairer yet. And if the special causes of sound personal hygiene are herein clearly shown to be inseparably connected with those of beauty, there will be reason to thank the author for writing the book. The topics discussed are as follows: The Laws of Health, Life, and Growth; Man's Place in Nature; Evolution; The Beautiful; Source of Female Beauty; Effects of Environment and Training; Art of Walking; Evolution of the American Girl; The Skin; The Bath; The Face, Hands, Feet, Nails, Hair, Teeth, Eyes, Ears, Nose; Food, Cloth-

ing, Ventilation, Circulation, and Digestion; Cosmetics, Soaps, and, finally, Household Remedies.

The book gives evidence of extensive research, multifarious reading, thorough acquaintance with modern science in its most abstruse aspects, and a profoundly philosophical spirit, such as the author has not shown in any of his previous works. It is by no means a "popular" book—that is, a rehash of barbers' formulas and antiquated cosmetic recipes. On the contrary, it is a well-conceived and carefully-written volume, dealing with its subjects in a scientific manner. We recommend the book to our readers, as well worthy a perusal by any practising physician.

Pamphlets.

How shall we use Astringents in the Treatment of Eye Diseases? By Julian J. Chisholm, M.D. Reprint from the *Maryland Medical Journal*.

A Study of Sterility; Its Causes and Treatment. By Thos. W. Kay, M.D., of Scranton, Pa. Being an essay which received the first prize of the Alumni Association of the College of Physicians and Surgeons, Baltimore. Reprint from the *Journal of the American Medical Association*, February 7, 14 and 21, 1891.

Psorospermiosis Follicularis cutis. By L. Duncan Bulkley, A.M., M.D., Professor of Dermatology. From *The Medical News*, November 8, 1890.

On the Dangers Arising from Syphilis in the Practice of Dentistry. By L. Duncan Bulkley, A.M., M.D. Read before the New York Odontological Society, April, 1890. Reprint from the *International Dental Journal*, August and September, 1890.

The Prevention of Tuberculosis: a Century's Experience in Italy under the Influence of the Preventive Laws of the Kingdom of Naples, Enacted in 1782. Read at the meeting of the American Public Health Association, Charleston, S. C., December 16, 1890. By Lawrence F. Flick, M.D., of Philadelphia. Reprint from *The Sanitarian*, for February, 1891.

The Medical Digest.

REPORT OF CASES OF ALCOHOLISM.—Dr. Latimer said that since he had assumed medical charge of the Baltimore City Jail, he had treated during the period from April 11 to December 31, 1890, 958 cases of alcoholism, of which forty suffered from acute excitement or mania-a-potu. The average duration of the mania in each case was forty-eight hours. All of these patients were admitted drunk; and most of them had had previous attacks of delirium tremens. Many of them were also addicted to the use of chloral and opium in addition to alcoholics. Nearly all of the total number had tremor; pains in the head and muscles; loss of appetite and frequently vomiting. The forty who had mania were usually noisy. As to treatment, he would say that no stimulants were given in any case. The uniform prescription was 30 grs. of bromide potassium every two hours in maniacal cases, and every three or four hours in other cases. In cases of noisy mania one-fourth grain of morphine sulphate was occasionally given hypodermically at bed-time. There were no fatal cases. All recovered. Not only were stimulants withheld, but the food was imperfectly adapted to their needs.

In view of these facts he was disposed to think that alcoholism was not due to a suspension of stimulants nor to the indisposition to take stimulants. Further, he did not regard the administration of stimulants as necessary to treatment. On the contrary, he was of the opinion that many cases of delirium tremens had a fatal issue in consequence of the administration of stimulants.—*Johns Hopkins Hospital Bulletin*.

In the *Virginia Med. Monthly*, Dr. Geo. Byrd Harrison relates a case of herpes zoster apparently due to arsenic. The peculiarity of the case lies in the very small dose of the drug, one-drop doses of Fowler's solution being the quantity prescribed. There was, in this patient, a general idiosyncrasy against drugs.

GERMICIDE POWERS OF URINE.—Dr. Erich Richter, of Wurzburg, has communicated to the Hygienic Institute of that city a paper with reference to the germicide power of fresh urine. He has found by experiment that it is capable of destroying the bacilli of anthrax, cholera, and typhus, and also of suspending this action to the acid phosphates, but having destroyed these phosphates by continued boiling, he found that a certain amount of the germicide action still remained. The carbonic acid of the urine has nothing to say in the matter.—*Med. Press*.

"FLUSHING" AS A CAUSE OF MORBID CHANGE.—Mr. Hutchinson (*Brit. Jour. of Derm.*) calls attention to the skin in the middle of the cheeks, which is liable to congestion or lividity from various causes, and the connection of simple flushing with skin diseases which are known specially to attack that part of the face. He proposes to designate this region as the "flush patch." He points out how, in some cases, eating makes this part flush as much as taking stimulants. In one of the cases which he describes, the flushing produced by drinking two glasses of port wine daily, with bitter ale at meals, led to permanent flushing, a condition which Mr. Hutchinson describes as "acne rosacea without acne." He relates a case in illustration of the relationship of certain forms of acne rosacea with lupus erythematosus, which he considers might have been "claimed as one of the chilblains, of acne rosacea, of eczema, or of lupus erythematosus, the truth being, as Mr. Hutchinson conceives, that it was one and all at the same time." The man was liable to chilblains from childhood, and the affection of the face began with a proneness to flushing after meals.

At the Liverpool Medical Institution Mr. Geo. F. Walker, showed three cases of lupus of the face which had been completely cured by the use of caustic potash. In one, in which the disease had affected the upper eyelid and the eyebrow, and in another, where the cheek and lower eyelids were concerned, skin grafting had aided the healing. In the third, however, wherein both cheeks, the nose, and the whole of the alveolus of the upper jaw were involved, the grafts did not take, therefore the potash alone deserved all the credit. The cases had shown no signs of return for three, four, and six years, respectively. In view of these and many others which he had treated similarly he thought that there was no necessity to resort to a certain septicemic fluid of which there had been so much advertising of late. Further, even its warmest advocates only claimed that it *greatly improved* lupus; none claimed that it would cure, as far as he had read. Now he had shown that potash would cure completely. He had heard recently that potash was accused of leaving hard, thick, and unsightly scars. Well, although he had been using it for well nigh twenty years, he could not call to mind one single case in which such a scar had been left. On the contrary, such thin, pliable, and slightly scars as those which he had shown that night were a fair sample of what he had obtained.—*Med. Press*.

MASSAGE IN INCONTINENCE OF URINE IN WOMEN.

—At the Royal Academy of Medicine in Ireland, Dr. W. S. Bagot read a paper on Massage as Applied to the Treatment of Incontinence of Urine in Females, in which he gave a full account of the treatment of this affection by the Brandt system, by Sanger's method, which consisted in dilatation of the vesical sphincter, and also by massage, by distension of the bladder with warm water, as practised first by Nissen and Marion Sims, Jr. He had cured three cases by the use of Brandt's system, omitting some of the steps which he considered useless. Details of the cases were given. The most essential part of this method was the direct treatment of the neck of the bladder by the finger in the rectum or vagina. In children one used the finger in the rectum. Massage by distension of the bladder with warm water was of use in case of contraction of the bladder following long-continued incontinence of urine from any cause, the holding capacity of the bladder being then much diminished. This condition was especially seen where fistula had existed or where patients had formerly suffered from severe cystitis of long standing. While recommending these treatments, Dr. Bagot urged the necessity of a careful diagnosis in every case. The cystoscopic examination should be more generally used.—*Brit. Med. Jour.*

VARICOCELE.—The principal points to which I wish to call attention in this communication may be conveniently summed up in the following conclusions, which, although in several respects opposed to what is commonly taught, I believe, from experience, to be perfectly sound:

1. That the vas deferens having been displaced in the manner usually adopted in operations for varicocele, the spermatic artery does not accompany it, but remains with the spermatic veins.

2. That in cases of varicocele the division of the main trunk of the spermatic artery, together with the veins, if the ordinary principles of surgical cleanliness be observed, is not only harmless to the testicle, but probably aids in the ultimate relief of the affection by diminishing the pressure of blood going to the testis at the time when almost all the returning veins are suddenly obliterated.

3. That the division of the vas deferens, spermatic artery, and spermatic veins, which entails a section of apparently the whole cord, is not necessarily followed by sloughing, or even subsequent wasting of the testicle, provided that a perfectly aseptic condition of the wound is maintained.

W. H. Bennett, in *The Lancet*.

MINERS' NYSTAGMUS.—I have long argued with my friend, Mr. Snell, that this disease is due, not to position, but to faulty illumination, and I now give the following reasons:

1. Less than half of the men who work down the pit are colliers (these are the only men who use the lying down position), but the disease is common to all the underground men.

2. It is especially common in men who work in headings, who do very little "holing." As a rule, the air in headings is very impure, the work is very hard, and the men have to concentrate their eyes on their work.

3. It is very liable to come on in men who have previously worked with naked lights.

4. It is very much more common in the winter than in the summer. In the winter almost every underground man I examine in my surgery has nys-

tagmus more or less. In the summer I only see the confirmed cases.

5. The disease is not confined to the oblique muscles. It is as often met with in the recti.

There is very little difference in the position of the collier in the thin and the thick seams. When a collier says he "sits" to his work, he means he lies down. This peculiar nomenclature will account for some of the discrepancies as to position.

I believe the disease is a clonus of any or all of the ocular muscles due to the fatigue following their tonic contraction, which is correlative of the dilatation of the pupils which occurs when the eyes are fixed on any object in a bad light. I also believe that the presence of "fire damp" favors its development.—W. M. Jones, *Brit. Med. Jour.*

STATISTICS OF ANÆSTHETICS.—We believe that St. Bartholomew's Hospital is the only one in the metropolis in which a record is kept and statistics published of the number of times anæsthetics are administered during the year. These statistics are both interesting and instructive, and become valuable as showing the direction of the current in favor of or against a particular anæsthetic agent. Turning, for example, to the records for 1879, we find that out of 2,094 anæsthetizations chloroform was given 975 times, nitrous oxide gas alone 112 times, ether alone 23 times, and ether preceded by nitrous oxide 984 times. In 1889, however, the records are as follows: In 3,606 administrations—chloroform 1,601 times, gas 686, ether 810, gas and ether 509 times. Thus, on comparing these figures the remarkable fact becomes apparent that chloroform has again come to the front as the most popular anæsthetic at St. Bartholomew's Hospital. Not only does the mixture of ether and gas not maintain its position of superiority as was the case in the year 1879, but in 1889 not even the total administrations of ether alone, and gas and ether combined, reach by a long way the number of administrations of chloroform. It is just possible that in part this change of opinion may be due to the results published by the Hyderabad Commission, of which a member of the staff of the hospital was the shining light. But investigation shows that ether has been declining in favor for some years at St. Bartholomew's. In 1888 it was administered 1,003 times out of 3,788; while, during the same year, gas and ether combined was only given 349 times. What a contrast this with eleven years ago, as the records above quoted demonstrate! As we see now, chloroform takes the lead, then a long way behind comes ether alone, while gas and ether combined make a shocking bad third.—*Med. Press.*

TRACHEAL TUGGING IN ANEURISM.—I. *Tracheal tugging is never present except in aneurism.* Though I have repeatedly examined patients who were suffering from other diseases, as well as those who were suspected of having aneurism, with a view to testing the truth of this statement, I have never found the tug perceptible. In a case of Hodgkin's disease, where there were enlarged glands in the thorax, causing a pressure upon the trachea, which could plainly be seen with the laryngoscope, and in which there were other signs of pressure—dilated pupil, unilateral sweating of the face, unilateral epistaxis, and accelerated pulse-rate, all pointing to pressure upon the sympathetic in the root of the neck—I could detect no tug.

2. *When tracheal tugging is present the aneurism is so situated as to press from above downward on the left*

bronchus, or upon that portion of the trachea immediately adjacent to it. To understand thoroughly the mechanism of tracheal tugging, a careful study of the relations of the transverse aorta in a cross section of the frozen chest should be made. The plates of Braune or of Dwight are also very instructive. The length of the transverse arch is not great, and the direction of its course is almost directly backward from the upper border of the second right costal cartilage to the upper part of the left side of the body of the fifth dorsal vertebra. The transverse aorta rides on top of the root of the left lung, lying between the left bronchus and the trachea. An enlargement of the blood-vessel, be it ever so small, will press upon the bronchus or upon the trachea at the root of the bronchus, and impart its pulsation to the air tube. At each beat it would push the bronchus down, and this downward push would necessarily be felt by the trachea and the larynx.

—R. L. Macdonnell, in *The Lancet*.

TREATMENT OF BALANITIS.—In cases of balanitis one of the most potent causes for a continuance of the inflammation is the decomposed accumulation of the sebaceous material exuding from the follicles in the furrow at the base of the glans penis—mucus, pus, epithelium, etc., which acts as a direct irritant. Assuming that the symptoms of this inflammation are well known, I wish to indicate a plan of treatment which has, during the past ten years, proved itself highly beneficial, and of which I can find no mention in medical literature. I refer to the local application of sulphate of atropia, the physiological action of which suspends the function of the mucous membrane and its glands when directly applied to the parts. This agent, combined with a mild astringent and a deodorant, gives us a means of absolutely controlling the secretions, at the same time it meets almost all other indications in treating the inflammation. The sedative action of atropia will relieve the tenderness of the parts, or if the pain is severe it can be combined with cocaine. The danger of systemic effect is almost nil; and should this follow, a suspension of treatment for a short time would suffice, when the solution may be reapplied at longer intervals. Where phimosis exists, a few drops of the solution may be injected between the glans penis and prepuce, with a slender-nozzled syringe, after the parts have been properly cleansed, and it will be found that the discharge will either immediately cease, or be greatly modified, affording us a point of diagnostic value in cases where urethral gonorrhoea is simulated. The ordinary advice to patients to keep the parts clean and dry cannot always be followed faithfully, and we can obtain better and quicker results if we take advantage of the peculiar action of this drug. Even in patients whose prepuce is long, and the mucous membrane lining it and covering the glands is sensitive to irritation, an occasional application of these combined agents will, in a very short time, render the part much less liable to inflammation. The subjoined solution is the one ordinarily prescribed by me, although it is open to any modification that the case suggests:

R.—Atropiæ sulphatis..... gr. j.
Zinci sulphatis..... gr. ij.
Acidum boracicum..... gr. v.
Aquæ destillat..... ℥j.

M.—S. Apply twice or three times a day with a small brush.

—W. R. Chichester, *Med. Record*.

Meharry Medical College graduated thirteen on February 19.

THE PRESENT POSITION OF DISINFECTION.—Mr. Wynter Blyth, in introducing this question, wished to confine his remarks to one important change that our ideas on the subject had undergone within the last few years. When Prof. Koch, in 1881, gave to the world the first results of his inquiries into the relation of micro-organisms to disease, it was the general inference that pathogenic microbes, or those concerned in the propagation of diseases of the infectious kind, were exclusively, or nearly so, of the spore-bearing class, and that, since the spores of all such organisms possessed great inherent vitality, no so-called method of disinfection could be deemed thoroughly efficient which did not succeed in destroying the vitality of the spores of bacillus anthracis, the most resistant of all. Now, however, that the nature of pathogenic microbes was no longer a matter of conjecture, those of most specific diseases having been identified, it was found that the bacillus anthracis could not be looked on as typical of the whole class, since the greater number, including such well-known forms as those of cholera, enteric fever, epidemic diarrhoea, septicæmia, and erysipelas, were not sporiferous, but occurred as micrococci, streptococci, or bacilli, very feebly resistant to heat or chemical agents. It was therefore unnecessary to have recourse to powerful chemical substances, the use of which was attended by obvious practical difficulties. In a paper read before the Royal Society he had pointed out the importance of temperature, time, and space as factors, and had shown that under appropriate conditions such simple measures as limewashing and aeration were, in most cases, amply sufficient for disinfection. Recent experiments, as those of Behring and of Pfuhl, published in the *Zeitsch f. Hyg.*, had proved the remarkable efficacy of lime. Boer had observed that while the addition of very small quantities of lime to culture fluids greatly favored the development of the bacteria, larger quantities, or the equivalents, of potash or soda, producing an alkaline reaction equal to what was known as 50° of normal acidity, were speedily fatal to all pathogenic organisms in any form other than the spore. Thus the strongly alkaline soft soaps were far better germicides than the much vaunted carbolic, thymol, or terebene soaps, and stripping off the wall paper, limewashing of walls and ceiling, with scrubbing of the floors and woodwork of a room with soft soap, were generally sufficient for all the purposes of disinfection. Lime, from its power of absorbing sulphur compounds and other offensive gases, while it was itself inodorous, was specially suited as an application to the contents of street gulleys, in the removal of disinterred corpses, in mortuaries, and in nearly all cases in which it would not cause the evolution of ammonia. For deodorizing stable manure and excreta, he thought that the acid sulphates, which would fix the ammonia, and not detract from the value of the manure, would be found preferable to carbolic powders. In the disinfection of rooms he now believed that sulphur fumigation was a useful addition to limewashing, etc., though at one time he was very doubtful as to its efficacy; but he held that all disinfection should be composite. He was inclined to the belief that the danger of infection being carried by the clothing of persons visiting the sick had been exaggerated. He did not deny that it might be conveyed by attendants who had been, so to say, "soaking" all night in the poisoned atmosphere, but it was quite a different matter with medical men and inspectors, whose exposure to the infection was of short duration.—*Lancet*.

ON THE USE OF PETERSEN'S RECTAL BAG AS AN AID IN SOUNDING FOR STONE, AND IN LITHOTRITY WHERE THE BLADDER IS POUCHED OR SACCULATED.

—Where the prostate is large and the posterior wall of the bladder considerably pouched or sacculated, as is often the case, it is not always easy to bring the point of a metal sound in contact with a stone which may thus be concealed. In this way a stone often escapes detection, whilst the searching for it, by reason of the elevation of the floor of the prostate, is not only thus rendered futile, but at the same time is frequently an extremely painful process. In the same way during lithotripsy fragments of stone may become trapped in these spaces, and lead to the persistence of cystitis and the formation of another calculus. I have found the use of Petersen's rectal bag, distended after its introduction into the bowel with two or three ounces of water, extremely useful in turning out sacculated stones into the larger cavity of the bladder, and in preventing the lodgment of fragments during a lithotripsy. By this means the depressed posterior wall of the bladder is brought up almost on a level with the prostatic urethra, thus facilitating the movement of sounds and other rigid instruments, and at the same time tending to turn any sacculation that may exist in this part with its contents, so to speak, inside out. I have tested these points now on several occasions. About the time I was making some observations bearing upon this point I was seeing a patient from whose bladder on two occasions, at short recent intervals, I had removed phosphatic calculi of small size. The prostate was large, there was a considerable amount of residual urine requiring the use of the catheter, and the posterior wall of the bladder was pouched and irregular. As the relief following each of these operations was only very temporary, and the urine was most offensive by the large amount of blood and muco-pus it contained, it seemed probable that there was more calculus in the bladder than could be got at in the ordinary way, and I thought it likely that some form of cystotomy, which would admit exploration of the bladder with the finger, with subsequent drainage, might yield more permanent results. Wishing to avoid this, and considering it possible that a stone might be lodged in a sacculus, I introduced Petersen's bag, as used in supra-pubic cystotomy, and turned out into the general cavity of the bladder a phosphatic stone, having a diameter of an inch and a half, which was readily crushed and evacuated in the ordinary way. The ease with which the manipulations, both with the lithotrite and the evacuating catheters were carried on, compared most favorably with the two previous occasions. It is now nearly four months since the last operation; the patient remains quite well, and the urine is normal. Previously to this last operation the patient could not sit down with any comfort, by reason, I presume, of the pressure of the fixed stone on the prostate. He can now dispense with the catheter, and as the amount of residual urine does not exceed an ounce, I conclude the sacculation, having once been properly emptied is becoming less. However, he takes the precaution of washing out his bladder every day with an antiseptic. I do not see how I could otherwise have removed this stone without opening the bladder, or without the use of the lithotrite in a manner which I should deprecate.

—Harrison, *The Lancet*.

THE sneak thief who lifts the doctor's overcoat is out again, and began operations on Dr. Bissey's office last Saturday. Look out for him.

TREATMENT OF PULMONARY PHTHISIS.—I shall now refer briefly to some of the different therapeutic agents that have been strongly recommended of recent years in the treatment of phthisis, and state the results I have obtained with them.

1. Breathing the vapor of burning sulphur has afforded only very slight benefit, but has caused much bronchial irritation. The stronger tannin wines, as St. Raphael claret, proved highly serviceable as an adjuvant in many cases. In one patient a marked increase in weight occurred under the administration of forty grains of tannic acid daily, but the improvement only lasted during three months. One phthisical patient, who also suffered from marked cardiac debility, with a very rapid, feeble, and irregular pulse, and whose digestion was being impaired by the long continued use of digitalis, benefited greatly in every respect under the administration of tincture of strophanthus in three-drop doses; but how long the improvement lasted I cannot say. The use of anilin and eucalyptus oil by inhalation, the administration of acetanilide, and the application of an ointment of iodoform and eucalyptus oil to the chest, the internal administration also of iodoform, were all of only temporary advantage, and the same may be said for inhalations and sprays of oil of peppermint.

2. Pure wood creasote proved very often of some service. It was useful in allaying irritable cough dependent on congestion of the larynx, as it appears to exercise a tonic action on the mucous membrane. It may be given internally with cod-liver oil, inhaled, or employed as a spray when diluted with spirit of chloroform. One of its constituents, however, guaia-col, the methyl ether of pyrocatechin, is an advance on creasote in every respect. Its taste is not so unpleasant, it rarely disagrees, and it appears more effective, particularly in the early stages. It can be given in drop doses in cod-liver oil or sherry. I employed it last year in three cases over several months; a slight but decided improvement showed itself, the cough and expectoration diminished, and the weight, as well as the body strength, increased. This amelioration lasted for a month in one of the cases, for six weeks in the second, and for eleven weeks in the third.

3. Lactic acid and lactate of soda, besides improving the digestion in some of the cases in which they were given, tended also to diminish the sweating. About ten drops, every two or three hours daily, of the lactic acid allayed the cough and quenched the thirst. Under their administration, also, the sleep was rendered deeper and more refreshing. By increasing the acidity of the system by the use of tincture of the perchloride of iron and nitro-hydrochloric acid, alternately with lactic acid in large doses, an attempt may be made to lessen the activity of growth of the bacilli. Much benefit seemed to result in two cases in which the experiment was tried, the number of bacilli in the expectoration undergoing marked diminution.

4. For the profuse sweating I have found atropine most useful, particularly where there was excessive formation of mucus in the stomach, and much tendency to hæmoptysis; though for the latter I have had to resort on several occasions to the inhalation of amyl nitrite, or to the subcutaneous injections of ergotine, ergotin, and hyoscin. Sulphonal and hydrate of butyl chloride also proved serviceable, if there were likewise sleeplessness and much night cough. On a few occasions pilocarpine ($\frac{1}{2}$ grain) injections afforded relief, as it also tended to diminish the dyspnoea. Camphoric acid gave but little satisfaction.

5. High temperatures were reduced by antipyrine and phenacetine in small and repeated doses. These bodies also relieved the cough and induced sleep. Hypnon, likewise, when inhaled in five-drop doses every four hours, lessened the frequency of the cough, slightly lowered the temperature, and gave a quiet sleep; but it proved somewhat variable in its action. In a few of the cases after taking antipyrine a troublesome skin eruption showed itself, accompanied by elevation of temperature. In these cases quinine proved most useful, and did not appear to manifest any hurtful action, such as Daremberg states is sometimes the case. Daremberg's plan of administering antipyrine I have, however, followed with advantage: Fifteen grains when the temperature is rising, but before it has reached 99.7° ; then fifteen grains every hour if it rises more than 0.5° , or even for a less rise than this should the patient be asleep. Cold baths proved of great service in two cases; but in another case in which the temperature rose to 105.8° it was rapidly reduced by the application of flannel cloths, wrung out of iced-water, to the chest and frequently changed, any tendency to collapse in either method being carefully watched for and overcome by stimulants.

6. In the case of a phthisical girl of healthy parents but of hysterical tendency, whose right apex was dull down to the lower margin of the second rib, and where the emaciation and loss of strength were very rapid, and there was great disinclination for food, after several methods of treatment had failed, I tried, with marked success, the following plan of excessive feeding. The stomach was well washed out, and then, by means of the stomach tube, 2 oz. of powdered beef with 18 oz. of sweet milk and three raw eggs were introduced into it morning and evening. After three days the powdered flesh in each meal was increased by $\frac{3}{4}$ oz., until 4 oz. were reached. Some brandy was also given with each meal. This treatment was continued with the best results for fifteen days, when suddenly great irritability of the stomach with persistent vomiting set in. Rectal feeding was then had recourse to for a few days. The bowel was washed out as high as possible, and twice daily the following mixture was injected: Finely divided beef, 5 oz.; finely divided fresh pancreas, 2 oz.; and lukewarm water, 4 oz.; a little carbonate of soda being added. The patient had in addition a quart of milk daily, both with the gastric as well as with the rectal feeding. Well-marked increase in weight occurred under both methods of nutrition. Accordingly the latter method was had resort to occasionally, but sometimes $\frac{3}{2}$ oz. of flesh peptones were injected instead of the beef, varied occasionally with 4 oz. of pea-meal that had been artificially digested in water, to which glycerine extract of pancreas had been added, together with a little salicylic acid. Under this purely dietetic treatment, which extended over four months, and was combined with the use of hypophosphites, cod-liver oil, and maltine, this young lady increased greatly in weight, the bacilli disappeared entirely from her sputum, all hæmoptysis ceased, and when I saw her a year and a half subsequently, shortly after she had returned from a long sea voyage, she appeared to be in perfect health, all dullness at the right apex having disappeared, and the respiration become normal. This case is, I think, interesting, as the treatment was almost purely dietetic. Hypophosphites undoubtedly tend to raise the nerve power and to improve the character of the secretions, and accordingly are most valuable tonics in phthisis. I have noticed under their administration an increased ex-

pansion of the chest, an improvement in the appetite, and a diminution in the night sweats. Combined with the malt extracts, cod-liver oil, Valentin's extract of beef, and Kemmerich's peptones of beef, they are often of great value. In early cases, also, arsenic may likewise be given with advantage.

7. In some cases in which diarrhoea was very troublesome, good results followed the use of small raw meat balls, alternately with meat peptones and Valentin's extract of meat, opium and bismuth being given at the same time.

8. In three cases I have tried Potain's treatment—that is: Sodid chloride, 10; sodid bromide, 5; potassic iodide, 1; water 100, 2 oz. every morning in a cup of milk. In two cases of caseous phthisis it was of no service, but a case of fibroid phthisis appeared to benefit greatly under its administration.

9. In affections of the throat in connection with phthisis, I have repeatedly seen great improvement follow the injection into the larynx of 10 to 20 per cent. solutions of menthol in olive oil. In one case, however, it failed completely; but in another, a man aged twenty-four, in whom there were tubercular ulcers in the larynx posteriorly, with tubercle bacilli in the sputum, and some slight alteration in the normal physical signs at the left apex, the ulcers completely healed under the influence of the menthol injections, menthol also being given internally. Having lost sight of this patient, I, however, can say nothing as to how he has progressed.

—Charles, *The Lancet*.

TREATMENT OF NERVOUS DYSPEPSIA.—Three principal elements of treatment I wish to enforce: Bromides, warmth, and rest. I have mentioned rest last, not because I consider it the least important, but because, although easy to prescribe, it is difficult of attainment. The sorrow, the worry, the annoyance, are beyond our power of removal, and equally uncontrollable by the patient, at least in his present condition. He requires mental rest and physical ease, which are best obtained by change of occupation, not by mental and physical inactivity.

Much the same applies to diet. No special form of diet is of much use. The trouble and bother of a very carefully restricted diet only increases the complaint. Limit the quantity of tea, which is apt to be imbibed too freely and frequently; and a non-stimulating diet will suit best.

Cold sea-side places, commonly called "bracing," do not, I think, suit them. In the same way, nerve tonics, strychnine, arsenic, and strong stimulants generally disagree.

The importance of *warmth* as a means of treatment of dyspepsia (specially nervous dyspepsia), is not, I think, sufficiently appreciated. It is, of course, well known, that people mentally depressed, suffer from the effects of cold much more acutely than others. One funeral general produces another. But the lack of proper clothing as a cause of indigestion is not commonly realized. Therefore, see that this class of patients are well clothed, especially as regards legs and abdomen. Ladies are the chief offenders. They "hang a flannel balloon round their waists, and clothe their legs in thinnest linen." Not that they will confess to being cold; they are too hot already; it is "impossible" for them to wear woollen undergarments; they "hardly know how to bear themselves for heat sometimes" (merely a nervous symptom). Do not give in. Make it a condition of first importance that they are warmly clad from knee and elbow to neck.

They do not stand a cold morning bath well; the substitution of a warm sponge bath is beneficial.

In the treatment of these patients by drugs, I think that they require to be distinguished from those who are suffering from nervous depression due to overwork. I look upon the nervous dyspeptic as suffering more from irritation than exhaustion; and whereas, the tired overworked dyspeptic with nervous symptoms will improve on tonic treatment, (strychnine, arsenic, iron, etc.), the "frothy saliva" class does not. The only drugs from which I have obtained beneficial results have been the bromides, given in fairly large doses—gr. xv.—gr. xx. of a combination of pot. brom. and ammon. brom. three times a day. The addition of some carminative to the mixture is generally "grateful and comforting" to the patients. In fact, *carminative* in its literal sense of "soothing" characterises the treatment which should be pursued.

Bismuth is a drug which might be considered peculiarly suitable, but I believe the reverse is the fact, although, judging from the symptoms alone it would seem to be clearly indicated. Bismuth in certain cases seems to act as a metallic irritant. I have seen foul mouth with foetid breath and an increase of gastric symptoms follow its administration.—R. D. Batten, *Med. Press*.

FRENCH NOTES.

A. E. ROUSSEL, M.D.

TREATMENT OF OXYURIS VERMICULARIS.—The success of the treatment depends as much upon its prolonged duration as upon the anthelmintic properties of the medicinal agents employed.

Vermifuge Preparations.—These are administered by injections, in suppositories, or in the form of pomades.

For injections we prescribe: Salt water (6 drachms to 6 ounces); sweetened water (Debout); infusion of absinthe (2 to 4 drachms for an injection), (Rilliet and Barthez), or species anthelmintic (2 to 2½ drachms to 7 ounces of water); or, finally, and more simple (Van Swieten), cold water.

West and Barthez have recommended astringent injections, the one with perchloride of iron and lime water:

R.—Lime water 2 ounces.
Perchloride of iron 10 drops.

Or:

R.—Lime water 1½ ounces.
Decoction of guimauve 1 "

With the same idea Trousseau prescribes suppositories of tannin:

R.—Tannic acid 15 grains.
Cacao butter 1 drachm.

It is unnecessary to state that injections of assafoetida and the decoction of garlic or of onion (Monti) still claim their partisans.

Vermicide Preparations.—These are to be preferred. Before their administration we will prescribe a laxative, as follows:

R.—Senna washed with alcohol 30 grains.
Boiling water 3 ounces.

Make infusion and add:

R.—Syrup of cherries 4 ounces.

If the child is four or five years of age we will add from 30 to 45 grains of sulphate of magnesia.

We will then administer parasiticide injections:

R.—Carbolic acid ¾ grain.
Water 3 ounces.

For one injection.

Or else an emulsion of calomel:

R.—Calomel 3½ grains.
Mucilage of flax seed 3 ounces.

For one injection.

Or else, according to Guersant, the sulphate of potash:

R.—Sulphate of potash 2½ drachms.
Water 3 ounces.

Naphthaline, recommended by Rossbach, is of service:

R.—Naphthaline 15 grains.
Olive oil 1½ ounces.

This dose should be doubled or tripled for adults.

Or else:

R.—Naphthaline 3 to 12 grains.
Decoction (boiling) of guimauve .. 6 ounces.

When the worms inhabit the inferior portion of the intestine, we may (Cruveilhier) prescribe the application of grey ointment; or, according to Valleix, injections on the margin of the anus with the following pomade:

R.—Calomel 10 grains.
Cacao butter 1 drachm.

Or, according to Trousseau, the following suppositories:

R.—Calomel 1 drachm.
Vaseline 6 "

If higher up in the rectum, or if rebellious to external medication, we prescribe the following vermifuge powder:

R.—Calomel,
Santonin āā 1¼ grains.

To be taken in a teaspoonful of honey before breakfast (Bouchut). For a child two or three years of age.

—*La France Médicale*.

PREVENTIVE AGAINST DENTAL CARIES.—

R.—Tannin 1¼ drachms.
Tinct. of iodine,
Tinct. of myrrh. āā 38 grains.
Iodide of potassium. 15 "
Rose water 6 ounces.

One teaspoonful to a glass of warm water as a mouth wash.

—*La Médecine Moderne*.

TREATMENT OF INFANTILE PARALYSIS (Prof. J. Simon).—At the beginning, counter irritation over the vertebral column, at a point corresponding to the origin of the paralyzed nerves. We employ for this purpose the least painful agents.

At the same time, stimulate the functions of the skin by hot baths, or vapor baths given in the bed of the child. Chloral, aconite, conium to calm the nervous excitation.

After the first eight days electrization should be the base of all treatment.

Feeble galvanic currents, positive pole to the arm and carried over the shoulder; the negative pole remaining in the basin in which the hand is plunged not longer than eight to ten minutes. Later on faradic electricity, and always with the greatest of prudence.

As Medicaments: Tincture of nux vomica, 1 drop with each of the two principal meals. This remedy may be diluted with 9 drops of tincture of colombo, and 10 drops prescribed to avoid all error.

At the end of eight or ten days alternate with 1½ grain of arseniate of soda, after which we return to the nux vomica.

Still later, as salt baths or sulphurous baths.

The treatment being necessarily prolonged, we should never become discouraged.

—*La France Médicale*.

Medical News and Miscellany.

THE estate of Dr. Thos. S. Kirkbride amounted to over \$250,000.

ENSWORTH MEDICAL COLLEGE graduated a class of twenty-three; three of whom were women.

STARLING MEDICAL COLLEGE graduated fifty-nine candidates; and Columbus Medical College forty.

EIGHTEEN gentlemen received the diploma of the Northwestern Medical College, of Toledo, on February 25.

DR. CROSS, of Jenkintown, had a valuable horse killed last Friday, by coming in contact with an electric wire.

DRS. PITT AND SMITH have inaugurated the dispensary nuisance in St. Joseph, Mo., by opening one devoted to the eye and ear.

THE Residents of Harper Hospital, Detroit, are not to be chosen exclusively from the graduates of the Detroit School of Medicine, but are open to all graduates.

SUCH of our readers as are contemplating a visit to the Cameroons had better take out a large supply of the sulpho-carbolates, as yellow fever rages there at present.

DR. DUNAGAN, of Texas, reports a case of malarial hematuria that recovered promptly when quinine was discontinued, and returned when quinine was again given.—*Memphis Medical Monthly*.

HOW THE BRITON VIEWS IT—MEDICAL FEES IN THE STATES.—The State Legislature of Missouri is said to have under discussion a bill limiting the fees of medical men to one dollar for a visit between 8 A. M. and 9 P. M., and to fifty cents for an "office prescription" (corresponding to the visit at the practitioner's own house). These little eccentricities of legislators elected by universal suffrage almost reconcile us to living under an effete monarchy.

—*Brit. Med. Jour.*

FEMALE MEDICAL EDUCATION IN SCOTLAND.—The First Annual Report of the Scottish Association for the Medical Education of Women, is full of promise for the future. Founded in order to remedy the shortcomings of the Edinburgh School of Medicine for Women, the organizers have thrown themselves heartily into the work, and have succeeded in providing for the classical training of their students, the victory of the year having been the throwing open of the Royal Infirmary to lady students, an achievement of which they are justly proud, though as the number of students per patient is already at least two, it can hardly be expected to afford as complete a classical training as one would desire. Fortunately, however, other institutions are available for the purpose, and as the number of lady students does not apparently exceed eighteen, the means may suffice. Considering that this is the first annual report, the financial condition may be described as satisfactory, in spite of the fact that students' fees only amounted to £215 10s., as compared with fees to lectures, £407 is. It is something for lady students to have acquired a *locus standi*, after so many years of relentless opposition. In a few years they may hope to find themselves in every respect on the same footing, so far as educational facilities are concerned, with their male competitors.—*Med. Press*.

It is proposed to digitate the stocking as a remedy for ingrowing nails.

OUR English contemporaries appear to be anxious that the medical profession shall be represented in the House of Lords. We trust, however, that no action will be taken to lower the present high standing of the British physician.

A PERSIAN EYE OPENER.—The Crown of the Moon occasioned a fiendish crime. Sir John Malcolm has written of a heinous Persian practice in its biography:

"Riza Kuli Khan, governor of Kazerûm, came to pay the Elchi a visit. This old nobleman had a silk band over his eye-sockets, having had his eyes put out during the fierce struggle between the Zend and Kajar families for the throne and royal treasures (in gold and precious stones) of Persia. He thus related his terrible tortures to us: 'I had been too active a partisan,' said he, 'to expect much mercy when I fell into the clutches of the rascally tribes of Zend. I looked for death, and was rather surprised at the lenity which condemned me but to the loss of my eyes. A stout fellow of a feresch came in as executioner of the sentence. He had in his hand a large blunt knife which he meant to make his instrument of torture. I offered him twenty *tomans* if he would use a penknife that I showed him. He refused in the most brutal manner. Seeing,' continued Riza, 'that I had no tenderness to look for from him, I pretended submission to my fate, and laid myself upon my back. He seemed quite pleased, tucked up his sleeves, brandished his knife, and very composedly put one knee on my chest, and was proceeding to his butchering work, when, observing him off his gaurd, I raised one of my feet, and, planting it in the pit of his stomach, sent him heels over head. I at once sprang up; so did my enemy; we had a short tussle, but he was the stronger, and, having knocked me down, finally succeeded in cutting out my eyes.' The sadness of this recital of his misfortunes brought tears to our own pitying eyes. So you see that even the possession of princely jewels has the disadvantage of attendant trials." It has been well observed that "cupidity, murder, robbery, and remorse are prime factors in most diamond matters, and that trouble, political, social, and personal, accompanies the god-like gem from its earliest to its latest resting-place."—From "Yarns About Diamonds," by David Graham Adey, in April *Lippincott's*.

ASSOCIATION OF AMERICAN PHYSICIANS OF BERLIN.—About forty American physicians held a meeting on February 19, 1891, at Berlin, in order to found a permanent organization such as exists in Paris, London, Edinburgh, and Vienna.

Prof. Miller, University of Pennsylvania, now Professor at the University of Berlin, called especial attention to the fact that such an organization would not only greatly benefit the physicians who remain here for purposes of study, but also that it would call the attention of Germany to the forward tendency of American medical science. He strongly urged the publication of the transactions of the Association every year.

Permanent organization was effected, Dr. Judson Daland, of Philadelphia, being elected as President, and Dr. F. Weber, Milwaukee, as Secretary.

Prof. Miller, Dr. Amos, of Iowa, Dr. H. Douglas, of New York, and the President and Secretary were elected as a Committee on Constitution.

As a Committee on Information to New Comers, and on Organization of Special Private Courses, Dr. H. T. Brooks, of New York City; Dr. Louis Frank,

Louisville; Dr. Crystal, Baltimore; Dr. Neal Mitchell, Florida; Dr. Marple, New York, and Dr. Kennedy, Montreal, were appointed.

The objects and scope of the society, as set forth in the preamble, are:

1. The arrangement of medical work and the formation of special private courses, so that any desired instruction may henceforth be obtainable at this University.

2. The giving of advice to new comers regarding instruction, lodgings, books, instruments, etc.

3. The reading and discussion of papers of general interest, exhibition of patients, and demonstration of specimens in all lines of work taken up by members.

4. The furthering of mutual ends by a more extended acquaintance of the physicians here.

The society at its first session listened to an interesting demonstration of specimens of myocarditis segmentaire, and of a blood cyst of the aortic valve, by Dr. Henry Douglas, New York City. Dr. Weber then demonstrated specimens of blood of leukæmia and pernicious anæmia, and talked of the value of Ehrlich's methods of blood-staining. Dr. Doland talked about malaria and relapsing fever in Russia, and demonstrated the pathological micro-organisms of these diseases.

An interesting discussion of these papers followed, thus alone making the benefit of the Association apparent to all.

Drs. Fitzgibbon and Mead, of Wisconsin, and Navy-Surgeon Kenyon were present as visitors. Prof. Miller then kindly offered the use of the Dental Lecturing Room of the University, Dorotheenstr 40, as a permanent meeting-room of the society.

New comers and others desiring information will please apply to the Secretary, Dr. Frederick R. Weber, Charite, Berlin.

BERLIN, FEBRUARY 28, 1891.

WEEKLY Report of Interments in Philadelphia, from March 14 to March 21, 1891:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess of brain.....	1	1	Fever, puerperal.....	1	1
" lung.....	1	1	" scarlet.....	1	1
Aneurism of the Aorta.....	1		" typhoid.....	20	10
Alcoholism.....	1		Gangrene of face.....	1	
Apoplexy.....	15		Hemorrhage from brain....	1	1
Asthma.....	4		" umbilicus.....	1	1
Bright's disease.....	4		Hernia.....	1	
Cancer.....	11		Homicide.....	1	
Casualties.....	5	2	Inanition.....	1	16
Cerebro-spinal meningitis..	1	1	Inflammation brain.....	2	18
Congestion of the brain....	2	5	" bronchi.....	5	7
" lungs.....	3	1	" larynx.....	1	1
Colic.....	1	1	" lungs.....	19	20
Child birth.....	1		" pericardium.....	1	1
Cholera infantum.....	1	3	" peritoneum.....	9	1
Cirrhosis of the liver.....	1		" s. & bowels.....	5	7
Collapse of the lungs.....	1	1	Insanity.....	3	
Consumption of the lungs....	44	10	Jaundice.....	1	
" throat.....	1		Malformation.....	1	
Convulsions.....	18		Marasmus.....	10	
" puerperal.....	3		Measles.....	1	
Croup.....	15		Old age.....	14	
Cyanosis.....	2		Paralysis.....	5	1
Debility.....	7	5	Pyæmia.....	1	1
Diabetes.....	1		Rheumatism.....	1	
Diarrhœa.....	1		Shock, surgical.....	1	
Diphtheria.....	9		Septicæmia.....	5	
Disease of the liver.....	1		Sore mouth.....	1	1
" heart.....	32	2	Softening of the brain....	1	
" knee joint.....	1		Suicide, cutting of throat..	1	
" spine.....	1		" hanging.....	1	
" ovaries.....	1		" shooting.....	1	
Dropsy of the brain.....	3		Syphilis.....	1	
Drowned.....	1		Ulceration of the bowels....	1	
Dysentery.....	3		" stomach.....	1	
Empyæma.....	1		" brain.....	2	
Epilepsy.....	1		Uræmia.....	5	
Erysipelas.....	2	1	Whooping cough.....	1	
Enlargement of the heart....	2				
Fatty degeneration of the heart.....	1		Total.....	263	200

THE PHILADELPHIA POLYCLINIC has received \$5,000 from Mrs. Harry Ingersoll to endow a free room for the Nurses' Beneficial Association. The nurses furnish the room. The Polyclinic is also establishing a fund, the interest from which is to be used for the benefit of the library, laboratories, etc., connected with this institution.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

ARMY, NAVY AND MARINE HOSPITAL SERVICE.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from March 8, to March 23, 1891.

War Department, Washington, D.C., February 25, 1891. The following named officers, having been found by army retiring boards incapacitated for active service on account of disability incident to the service, are, by direction of the President, retired from active service this date, under the provisions of Section 1,251, Revised Statutes: Captain John de B. W. Gardiner, Assistant-Surgeon; Captain Robert W. Shufeldt, Assistant-Surgeon. Par. 12, S. O. 43, A. G. O., Washington, D.C., February 25, 1891.

By direction of the acting Secretary of War, Major Passmore Middleton, Surgeon, is relieved from duty at St. Francis Barracks, Florida, and will proceed to Newport Barracks, Kentucky, and await further orders. The travel enjoined is necessary for the public service. Par. 8, S. O. 62, A. G. O., Washington, D.C., March 19, 1891.

Leave of absence for one month, with permission to apply for an extension of one month, is granted Captain Henry P. Birmingham, Assistant-Surgeon, to take effect upon arrival at Boise Barracks of First Lieutenant Robert R. Ball, Assistant-Surgeon, U. S. Army. Par. 2, S. O. 39, Department of the Columbia, March 13, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending March 21, 1891.

CLEBORNE, C. J., Medical Director. Detached from Naval Hospital, Norfolk, Va., and ordered to Naval Hospital, Chelsea, Mass.

PENROSE, T. N., Medical Inspector. Ordered in charge of Naval Hospital, Norfolk.

STEELE, JOHN M., Passed Assistant-Surgeon. Detached from coast survey steamer "Bache," and granted three months' leave of absence.

GAINES, JAMES H., Surgeon. Placed on the Retired List, March 18, 1891.

RUTH, M. L., Surgeon. Granted a month's leave from April 2 next, with permission to leave the United States.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ending March 14, 1891.

LONG, W. H., Surgeon. Granted leave of absence for seven days. March 13, 1891.

AUSTIN, H. W., Surgeon. To proceed to Baltimore, Md., for special duty. March 14, 1891.

GODFREY, JOHN, Surgeon. Detailed as Chairman of Board for physical examination of officer of Revenue Marine Service. March 4, 1891.

BANKS, C. E., Passed Assistant-Surgeon. To proceed to Boston, Mass., on special duty. March 7, 1891.

PERRY, T. B., Assistant-Surgeon. Leave of absence extended thirty days. March 13, 1891.

HOUGHTON, E. R., Assistant-Surgeon. Detailed as Recorder of Board for physical examination of officer of Revenue Marine Service. March 4, 1891.

The Times and Register.

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Whole No. 656.

	PAGE		PAGE		PAGE
ORIGINAL ARTICLES.		PAMPHLETS		236	
ARISTOL, THE NEW ANTISEPTIC: ITS ADVANTAGES OVER IODOFORM. By M. Egasse	275	THE MEDICAL DIGEST.			
SOCIETY NOTES.		Eye Strain the Cause of Functional Head-ache and Migraine. <i>Callan</i> 286			
PHILADELPHIA COUNTY MEDICAL SOCIETY, 278		Deodorization of Iodoform by Creolin. <i>Vacc</i> 286			
The Construction and Adaptation of Spec-tacle-frames. <i>Thomas</i>	278	Distoma Pulmonalis. <i>Sei-i-Kwai Med. Jour.</i> 286			
THE POLYCLINIC.		Resuscitative Efforts in the New-born. <i>Jour. Am. Med. Assoc.</i> 286			
MEDICO-CHIRURGICAL COLLEGE:		The Symptoms of Myxœdema and of Ex-ophtalmic Goitre Contrasted. <i>Bramwell</i> 287			
Ataxic Symptoms in Typhoid Fever. <i>Waugh</i>	281	The Endoscope in Urethral Affections. <i>Lewis</i> 287			
Flatulence. <i>Waugh</i>	281	Official Report on Koch's Treatment in Prussia. <i>Brit. Med. Jour.</i> 287			
Vertigo. <i>Waugh</i>	281	Antipyretics in Diseases of Infancy. <i>Demme</i> 288			
The Best Diet for Typhoid Fever. <i>Waugh</i>	281	Cerebral Lesions Altering Temperature. <i>Brit. Med. Jour.</i> 288			
COOPER HOSPITAL:		Cold Bath Treatment of Typhoid Fever. <i>Hare</i> 288			
Iodol for Dressing Wounds, etc. <i>Strock</i>	281	Hepatic Surgery. <i>Shield</i> 289			
Compound, Comminuted Fracture at the Elbow-Joint. <i>Strock</i>	281	Eclectic Practice. <i>Eclectic Med. Jour.</i> 290			
JEFFERSON MEDICAL COLLEGE HOSPITAL:		Aristol. Peroxide of Hydrogen, Pyoktanin. <i>Squire</i> 290			
Tumor At or Near the Pons Varolii	281	Specific Medication. <i>Watkins</i> 290			
Incontinence of Urine	281	FRENCH NOTES. <i>Roussel</i> 291			
Cold Abscess. <i>Keen</i>	281	Tinea Tonsurans. <i>La Tribune Méd.</i> 291			
Asthma	281	On the Influence of Intestinal Antisepsis on the Tolerance of Certain Medica-ments. <i>Firé</i> 291			
Comedo. <i>Stelwagon</i>	281	The Malarial Element in Oöphoralgia. <i>Coe</i> 292			
Pregnancy. <i>Parvin</i>	281	New Table of Atomic Weights. <i>Pacific Drug Review</i> 292			
Scurvy. <i>Rex</i>	281	MEDICAL NEWS AND MISCELLANY, 293			
Treatment of Endometritis. <i>Parvin</i>	281	ARMY, NAVY, AND MARINE HOSPITAL SERVICE 294			
To Check Hemorrhage from the Nose. <i>Solis-Cohen</i>	281	NOTES AND ITEMS iv, xii			
EDITORIALS.					
ABDOMINAL TUBERCULOSIS		283			
ANNOTATIONS.					
Cyclopedias		283			
Local Nutrition		283			
Sale of Proprietary Medicines in Italy		284			
Hypnotism and Hypnotic Suggestion		284			
LETTERS TO THE EDITOR.					
The Secret of Success. <i>Williams</i>		284			
Hyperidrosis. <i>Seitlikovitch</i>		284			
Some Alarming Symptoms from Antifeb-rine. <i>Frankhauser</i>		285			
BOOK NOTICES.					
Koch's Remedy. <i>Browne</i>		285			
Fourteenth Annual Report of the Board of Health of the State of New Jersey, and Report of the Bureau of Vital Statistics, 1890		285			
Sexual Neurasthenia. <i>Beard</i>		285			
The International Medical Annual and Practitioner's Index for 1891. <i>Williams</i>		286			

Original Article.

ARISTOL, THE NEW ANTISEPTIC: ITS ADVANTAGES OVER IODOFORM.¹

By M. EGASSE,

Professor of Chemistry at the Rochefort School of Medicine. Collabora-tor of Les Nouveaux Remèdes, Paris, etc.

THE research for chemical substances endowed with antiseptic properties analogous to those of preparations we already possess, but which do not present the unpleasant effects which accompany or follow the use of the latter, has led to the discovery of a perfectly well-defined product, to which Eichoff, who has studied its therapeutic properties, has given the name of *Aristol*, from a Greek word, meaning "better."

Aristol is an amorphous powder, of a reddish-brown color; that is to say, when it is properly prepared. It is inodorous, and is insoluble in cold water; but it decomposes in water having a temperature of 140° F. It is insoluble in glycerine, and sparingly soluble in alcohol; but it dissolves readily in ether, chloroform and benzine. Alcohol possesses the power of precipitating it from its ethereal solution.

It dissolves in the fixed oils, and in liquid vaseline; but heat should not be used in making the solutions.

Hence, we must not call it a strictly stable product, while we bear in mind that it is best as it is, for aristol owes its therapeutic properties to the slow elimination of iodine, which is set at liberty under the influence of light and heat.

¹ From the *Bulletin Général de Thérapeutique*, Paris, Sep-tember 15, and October 15, 1890.

It has been established that aristol is not toxic, and no unpleasant phenomena have developed after its application as a surgical dressing. The investiga-tions as to the harmlessness of the preparation, were made at the instance of Prof. Quinquand, by M. Fournioux, who also studied in what manner, and under what forms it was eliminated. With these ob-jects he employed injections (subcutaneous) of aristol in olive oil. From these experiments, he drew the following

CONCLUSIONS:

1. Aristol in subcutaneous injections with oil, is not toxic to guinea-pigs, in doses of 2.50 gm. per kilogramme of the weight of the animal.
2. Introduced into the stomach it is eliminated in part by the urine in the form of alkaline iodides, and probably, in the form of thymol in alkaline combi-nation.
3. The urine eliminates but about one-half of the iodine ingested.
4. The subcutaneous injections occasion no local in-flammation.
5. The duration of the process of elimination averages four to five days; sometimes the period is shorter, and its length seems to depend upon the dose injected.

At a meeting of the French Society of Biology, Prof. Quinquand confirmed these conclusions; he stated also that he had never found thymol in the urine.

ARISTOL IN THERAPEUTICS.

Eichoff was the first to employ aristol in the hos-pital service, and he commenced his tests in the der-matological and syphilis wards of the Elberfeld Civil Hospital. He based his belief in the preparation

upon its chemical composition, which he thought must endow it with exceptionally valuable antiseptic qualities. He felt, also, that the absence of odor in aristol must give it a marked superiority over other preparation of iodine, especially iodoform. Hence, to his mind, aristol was clearly indicated in various cutaneous lesions and in the syphilides.

A woman of thirty-five years, suffering from varicose ulcers and eczema of the legs, was treated topically, with an ointment consisting of 10 parts of aristol and 90 parts of vaseline. Within twenty-four hours the ulcerations had a better appearance. At the end of a week's treatment, the patient was discharged cured.

A woman of about thirty-five years was suffering from facial lupus to such a degree that she had been declared incurable. Eichhoff treated the edges of the lesions with an ointment of resorcin and phenicated oil, after which he made three applications daily of the 10 to 90 parts of aristol and vaseline, covering the dressings with gutta-percha cloth. In a few days the granulations presented a better aspect, the borders of the lesions were less prominent, and the pruritus had disappeared. The painful phenomena, such as cephalalgia, insomnia, etc., which had followed the application of iodoform, did not appear under the use of aristol. The lesions healed in four weeks.

In connection with this case, Eichhoff remarked that the other medicaments, pyrogallie acid, corrosive sublimate, salicylic acid, creosote and arsenic, employed to combat lupus, are not efficacious, except as against the bacillus; they have no favorable action upon the cicatrization of the lesion. Aristol united these two conditions, and this gave to aristol a marked superiority over the substances cited.

This action upon the bacillus of lupus led to the supposition that aristol, used hypodermically, would be a specific in tuberculosis and syphilis, and experiments were commenced to test this proposition.

In psoriasis, aristol gave better, though not quite as rapid, results as are obtained from chrysarobine and pyrogallie acid, while it possessed the inestimable advantage of being free from odor and wholly innocuous.

In tinea sycosis, aristol, while being as actively efficacious as other applications, possessed so great an advantage over them through the fact of its non-irritating qualities, that cures by it were much more rapidly gained.

Aristol was likewise successfully employed in various forms of psora, in eczematoses, and in hereditary syphilis.

Eichhoff observed no toxic phenomena as following the use of aristol, and he recommends it highly in surgical cases, even diseases of the bones and articulations.

In cutaneous affections he declares that aristol is a highly advantageous substitute for iodoform, iodol and sozoiodol.

In a communication to the Society of Practical Medicine (Paris), Dr. Baratoux cited a number of cases as demonstrating that aristol is a cicatrizing agent of the highest order of merit.

Professor Schmitt, of Nancy, France, has reported a large number of cases demonstrating the value of aristol as an antiseptic and a cicatrizing agent.

An ethereal solution of 15 to 100 caused prompt cicatrization of strumous ganglia in two children.

Rapid cure was obtained in seven cases of varicose ulcerations of the inferior members. The patients had been previously and unsuccessfully treated by dressings of phenic acid, creoline or iodoform, and had been kept in bed.

In two cases of generalized psoriasis the ethereal solution of 10 to 100 of aristol effected a disappearance of the efflorescences quite as rapidly as though chrysarobine had been used, and this without causing irritation.

In Dr. Schmitt's cases, to the number of forty, he never observed any sign of toxic effect from the use of aristol.

Dr. Fournioux, with Prof. Quinquand, studied, in the service of the Hospital Saint-Louis, the effects of aristol as a topical cicatrizing agent of all varieties of ulcerations, and also investigated its properties as a therapeutic agent in various cutaneous affections. He regards aristol as "a true therapeutic agent for ulcerations and open wounds generally." "Its action," says Dr. Fournioux, "is incontestable in cases of varicose ulcerations of the inferior members, and, under its application, cicatrization is extremely rapid."

In chronic ulcers with callous borders, and which were lacking in vitality and rebellious to the best previously-known topical applications, aristol was found very useful; exuberant granulation followed its use.

An extensive eczematous ulceration upon the posterior surface of the right leg was cured rapidly by applications, repeated every two or three days, of aristol in powder.

In the treatment of soft and indurated chancres, the effects of aristol were not immediately appreciable; but, as soon as the influence was felt, cicatrization proceeded very rapidly. In no case were inflammatory phenomena observed as following the use of aristol.

Aristol gave excellent results in the treatment of ulcerative syphilitic gummata.

Aristol proved to be efficacious in the treatment of a case of cutaneous tuberculosis.

Briefly, Dr. Fournioux said there could be no doubt concerning the antiseptic properties of aristol. It certainly prevented the development of mycoderms and the microbes of suppuration, even when employed in small quantities. "Its cicatrizing properties," he stated, "were very evident, while we know that the applications of aristol are not painful, irritating, or toxic." He regards aristol as an excellent therapeutic agent.

Dr. Quinquand's conclusions, as communicated to the French Society of Biology, were analogous to those above stated. Prof. Quinquand added that the action of aristol is very marked upon ulcerations of the inferior members, whether or not of an eruptive nature, as also upon chronic chancres and atonic ulcers.

In a communication to the Paris Society of Practical Medicine, Dr. Gaudin gives an account of a number of cases in which he employed aristol. He first tried the preparation in a case of uterine epithelioma, which he treated with tampons of aristolized cotton. He did not, of course, obtain a radical cure of the condition, but the hemorrhage was soon arrested, the fetid ichor was effectually checked, and the lesion took on a healthy coloration.

Associated with suitable internal treatment, the application of aristol cured a case of syphilitic chancre of the lower lip.

The results were excellent in two cases of generalized psoriasis.

Good results were obtained from applications of aristol in two cases of varicose ulcer of the inferior members; in two cases of pilar eczema, and in one of chancre of the penis.

Dr. Gaudin prefers aristol to iodoform, as it possesses all of the good qualities of the latter, while it is free from the disagreeable odor and toxic influence by which iodoform is characterized. It adheres well, both to the skin and the mucous membranes, a property which renders its use very advantageous for dressings of lesions of the natural cavities.

The ready solubility of aristol in ether makes it suitable for use in the impregnation of the paraphernalia used in surgical dressings. Though insoluble in water, the local effects of aristol are very manifest, and are most satisfactory.

In Dr. Gaudin's estimation aristol is a perfect substitute for iodoform. Its use is indicated, he says, in varicose ulcers and in simple chancres, the base of the latter not being indurated by its action. And it does not, like calomel, tend to give to chancres a phagedenic character. In psoriasis it has no toxic or irritant action. It acts well in cutaneous affections of parasitic origin.

Loewenstein employed aristol in four cases of ozena, to the exclusion of all other therapeutic agents. By practicing insufflations of powdered aristol, and using aristolized collodion (10 per cent.), as a paint, he was enabled to effect rapid cures in syphilitic ozena.

In three cases of simple ozena, insufflations of powdered aristol caused a disappearance of the fetid odor, and the accompanying cephalalgia, while they prevented entirely the formation of crusts.

Dr. Loewenstein also observed that the powdered aristol adhered admirably to the mucous membrane, forming a perfect coating to the parts affected.

Dr. Pollak, of Prague, made a very successful use of aristol in the form of a 1 to 100 solution in alcoholized ether. He also made successful use of a 10 per cent. ointment (made with vaseline) in congenital scrofulous engorgement; in epididymitis, in parametritis; in tuberculous inflammation of lymphatic glands, and in various ulcers.

Dr. Pollak states that aristol is an excellent substitute for all of the iodinated preparations hitherto employed.

Dr. Seguiet gives in a thesis the results of his tests of aristol. In tuberculous ulcerations aristolized dressings promptly diminished the secretion of pus; acted as a powerful detergent of the surfaces, and finally effected a cure of the condition. The use of iodoform had not been followed by good results in this case.

Applied to soft chancres, aristol had disinfected the surfaces and affected cicatrization.

Varicose ulcers on the inferior members were rapidly cicatrized under applications of aristol in powder.

Dr. Seguiet states that aristol is an excellent substitute for iodoform, while it possesses neither the strong odor nor toxic properties of the latter preparation. It is important, he adds, to carefully consider the many indications for its use and to assure ourselves that it contains no alkaline iodides. It renders inestimable service as a cicatrizing agent in ulcerations of the skin and mucous surfaces; indeed, it is "an epidermic agent" of the highest order of merit.

Dr. Doyan has employed aristol in a certain number of cases. In the case of a child of ten years, suffering from syphilitic ulcerations with atonic granulations and thickened edges, he effected rapid cicatrization by the use of a ten per cent. ointment of aristol and vaseline.

In a case of ulcerative lupus of the face, in which the condition had continued for several years, Dr. Doyan made applications of the above mentioned ointment for one month, with the effect of determining

complete cicatrization of the ulcerated surfaces. The dressings gave rise to no pain or irritation of the neighboring tissues, and had not untoward effect upon the patient's general condition. An examination of the urine gave no sign of the presence of iodine. Hence, it would seem that aristol acts not only as a cicatrizing agent, but also as a specific remedy for the bacillus tuberculosis as developed in lupus.

In a case of varicose ulcerations of the inferior extremities, accompanied by parasitical eczema, a ten per cent. ointment of aristol and vaseline gave excellent results. The patient was able to leave the hospital, cured, after seven days of treatment.

Two children suffering from trichosis of the scalp were treated locally with a ten per cent. ointment of aristol, applied twice daily. Complete cure was effected in ten days.

Dr. Estapo, of Barcelona, reports that he used aristol at his clinics of children's diseases in the Asile Luna del Nino Jesus. He cites the case of a child, aged two and a half years, who was suffering from an impetigo of the ear, which, under the influence of a diphtheritic attack, became covered with false membrane, and took on the aspect of a large ulcer situated in the mastoidal and parotidian region. Applications of aristol in powder, administered twice a day, promptly cured the ulceration.

A child of three years, suffering from chronic coryeza, was promptly cured by insufflation of aristol in powder, alternated by pulverizations of a solution of the same preparation.

Aristol in powder effected rapid cicatrization of an ulceration in the thoracic region which had previously remained obstinate to various methods of treatment.

Dr. Eichhoff in a second series of experiments with aristol, states in five cases of lupus maculosus, and four cases of ulcerative lupus, he obtained complete cicatrization by the use of aristol. He commenced treatment by scraping and cauterizing the surfaces.

By the use of a ten per cent. ointment of aristol, he succeeded in curing nine out of eleven cases of mycosis tonsurans. The employment of a five per cent. ointment and a five per cent. elastic collodion of aristol for three weeks only, cured eight cases of parasitical sycosis barbæ and of the mons pubis, and five cases of eczema of the face, arm, etc. A case of erythematous lupus of the face, hands and feet was greatly ameliorated by its use.

It seems very evident from the extracts we have given from the various reports upon this subject, that in aristol we have added a veritable arm to our therapeutic arsenal.

FORMULARY:

Ethereal Solution:

Aristol.....	10 gm.
Ether.....	100 "

Aristolized Collodion:

Aristol.....	1 gm.
Drastic collodion.....	9 "

(The collodion adheres well).

Aristol Ointment:

Aristol.....	10 gm.
Olive oil.....	20 "
Lanoline.....	70 "

Aristol Crayons (Swieciki):

Aristol.....	5 gm.
G. acacie	q. s.

(Make 5 crayons; may be used in the uterus in endometritis).

Aristol Suppositories :

Aristol..... $\frac{1}{2}$ to 1 gm.
Cacao butter q. s.

(For one vaginal suppository)·

Aristol Gauze.—The gauze should be impregnated with an ethereal solution of aristol, and made to contain from one 1 to 2 gm. of aristol per square yard.

Aristol should be kept in opaque, yellow containers made of glass.

Society Notes.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, February 11, 1891.

The President, JOHN B. ROBERTS, M.D., in the Chair.

DR. CHARLES HERMON THOMAS submitted a paper on

THE CONSTRUCTION AND ADAPTATION OF SPECTACLE-FRAMES.

The treatment of ocular defects by means of glasses involves beside the optical correction, a factor of no less practical importance—their mechanical adjustment. The purpose of the present paper is to direct attention to some of the mechanical aspects of the subject, particularly to the principles involved, and to certain methods of mounting spectacle-glasses.

The results of the most accurate refractive measurements may be entirely vitiated by a faulty position of the correcting glasses; not only so, but new sources of eye-strain may be created by the very means adopted to remove an existing fault. Correcting glasses are remedial agents, just as orthopædic appliances are, and, as such, are powerful for evil as well as good, and hence everything belonging to them falls within the duty of the prescribing physician.

The optical center of a lens is generally that part of the glass which we wish to bring before the pupil, as it, and the part of the lens immediately surrounding it, are freest from aberrations of all sorts—distort least. Occasionally, however, it may be desirable to displace this point by a definite amount; in any case, we should insist on having the optician carry out our directions as regards the manner of mounting and the position of the glass with the same exactness that he employs in making it of the proper strength.

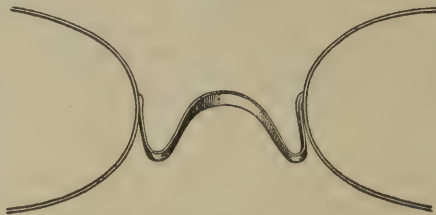
The purpose of the spectacle-frame is to hold a pair of glasses before the eyes in a definite position and with the least possible annoyance to the wearer. To accomplish this, I devised a plan about thirteen years ago (1878) for the construction of spectacle-bridges, which plan provides especially for a wide range of adaptability, and the consequent accurate adaptation of spectacles to individual faces of almost every conceivable form. No account of the principles involved has heretofore been published, so far as is known, although some special forms of the bridge, as originally made under my direction, have come into almost universal use, being known throughout the optical trade under the name saddle-bridge.

Previous to the introduction of this bridge it was not practicable to obtain spectacle-frames suitable for persons with unusual forms of nose or face or with excessively prominent eyes or long lashes. Then, besides the ordinary "regular bridge," there was nothing better in use than the "X-bridge" or the equally

unsatisfactory "snake-bridge," in both of which the combined weight of the glasses and frames was often borne directly upon the crest of the nose, besides which they usually failed to place the glasses in the correct position before the eyes. Few could wear either of the latter with comfort, and those who succeeded often did so only by padding them with wrappings of thread, thus making an unsightly cushion at the point of contact with the nose.

The bridge (Fig. 1) under the plan referred to consists of (1) a nose-piece of arched form, of flattened wire, and made to conform accurately to the shape of

FIG. 1.



Saddle-bridge—typical form (back view).

the nose at a definite point of selection, crossing the bridge of the nose at right angles, and so resting saddle-wise upon it—whence its name. (2) A pair of adjustable return-pieces or arms, to the extremities of which are attached the rims or clasps carrying the glasses. These arms are produced by bending outward upon themselves the limbs of the wire from which the arch of the bridge has been formed, and are given whatever special direction may be required to place the glasses in the desired position before the eyes of the individual wearer.

The bridge consists, then, of an arch and two adjustable arms, which, while fixing the glasses in their proper position before the eyes, should furnish as nearly an immovable support as possible.

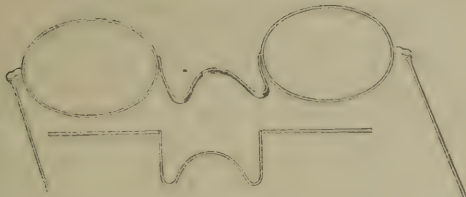
The bridge of the nose close to its root being the basis of support, the spectacle-bridge must be constructed with reference to this part. The wire of which it is made should be wide at the middle and taper toward each end, so as to make the bridge widest where it takes its bearing on the sensitive part of the crest of the nose. Narrowing the extremities is of special advantage, as it facilitates any necessary bending at that point in the process of adjustment. The sides of the arch should embrace the nose snugly without undue pressure, and extend well back toward the inner canthus, but not far enough to press upon the lachrymal sac. The saddle, or arch, as thus described, becomes the fixed support when it rests in its proper position. This position varies considerably in different persons, though on every nose there is usually one best point that should be sought—the point of selection, it may be termed. Unless the arch be adjusted to this particular point, the wearer will be rendered uncomfortable, and be continually shifting his spectacles. A few days' wear may be required to determine this point definitely in a particular case.

The arch of the bridge, when once adapted to the nose, is not to be altered in position during any subsequent regulation or adjustment which may be required; it is to be considered as a definitely fixed support, whose situation is determined, once for all, by the conformation of the wearer's nose. Hence the position which the lenses are to take before the eyes does not directly depend upon the arch, but rather upon the length and direction of the adjustable arms attached to it, by variations in which the

glasses may be made to take any required position. The arms are to be made long or short; they may be set high or low; pointed inward or outward, according to the requirements of any given case.

If the eyes be specially prominent, and the bridge of the nose be low, thus causing the lashes to project beyond the level of the nose, the arms must be made relatively long (Fig. 2); or, if the bridge of the nose

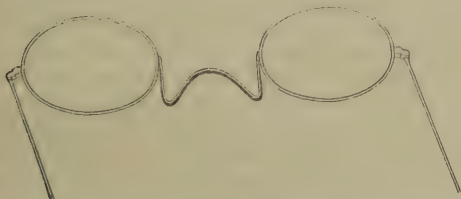
FIG. 2.



Saddle-bridge, with horizontal arms; for prominent eyes and long lashes.

be low or flat, and the eyes be placed relatively high, it may be required to direct the arms perpendicularly upward (Fig. 3); or, again, if the bridge of the nose

FIG. 3.



Saddle-bridge, with vertical arms for flattened nose; eyes high.

be prominent, and the eyes sunken, the arms should be shortened, or even reduced to the minimum required for purposes of lateral and vertical adjustment.

The height of the eye as related to the part of the nose on which the arch rests—the point of selection—determines the amount of slant, if any, to be given to the arms. In practice it is found that in by far the larger proportion of cases the arms are nearly horizontal, slanting slightly upward; in exceptional cases they slant downward below the horizontal; and in rare instances it is necessary to give them an almost perpendicular direction upward. The angle which the arms make with the clamp or rim carrying the glasses must vary according to the direction of the arms, in order to keep the plane of the glasses perpendicular to the visual lines. The arm, where it is soldered to the rim, or the clasp of frameless glasses, is slightly bent in an upward direction. Increasing or diminishing these curves changes the position of the glasses vertically, and so compensates for any degree of upward or downward slant of the arms. This may be necessary where, for example, the point of selection of the arch is low down on the nose; the arms must then ascend vertically to raise the glasses to a level with the eyes; but this position of the arms will cause the glasses to assume an approximately horizontal direction—parallel to the visual lines—if the arms meet the rim at or about a right angle, as they usually do; in such a case, the arm must be bent so as to join the lens at an oblique angle or even lie in the plane of the lens.

The proper adjustment of a pair of spectacles in ordinary cases is largely determined, as we have seen, by the length and direction of the arms. In special cases, also, as in asymmetry of the face, the compensation required is to be effected by the same

means. In some cases the arms may need to be of unequal length. It is of frequent occurrence that the centers of the pupils on the two sides are unequally distant from the center of the arch. When this condition exists it is to be met by varying the direction and, it may be, also the length, of the arms.

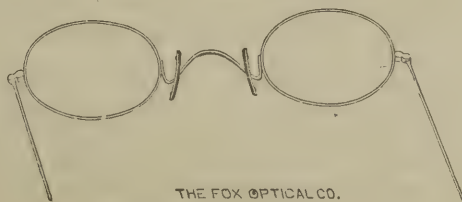
It is important from the point of view of the optician, to note that the principal adaptations of the bridge are preferably to be made extemporaneously and with the patient present. In this way, with a variety of sizes of the typical form at hand, the skilful mechanic is able to produce any particular modification which may be required without specially constructing the frames, even for atypical faces. It is often desirable to take the conformation of the nose at the point of selection. This may conveniently be done with lead wire, and the outline thus obtained may—by “rubbing”—be made a part of the record of the case.

Variations in the size of the lenses employed will also necessitate modifications in the lateral adjustment of the arms. To get the advantages of a large glass in cases where the distance between the eyes is relatively small, the arms will have to be bent inward—made to approach each other. The opposite direction may have to be given them in cases of unusual width of face.

Lateral supports, or clamps, which take their bearing lengthwise on the sides of the nose near the base, as in eye glasses of the best construction, have occasionally been employed by others in combination with spectacle frames, but usually in form and by mechanical means not wholly satisfactory.

I have recently had made by the Fox Optical Company a combination of the eye glass clamps with the saddle-bridge (Fig. 4), which is neat and simple in con-

FIG. 4.



THE FOX OPTICAL CO.

Saddle-bridge: with clamps.

struction, and which combines the advantages of both in great degree. The attachment is so made as to preserve the adjustability both of the bridge and the clamps. The special advantage of this combination is that it distributes the pressure over a larger surface, and upon parts better able to sustain it than does the arch of the bridge alone.

The side-pieces, or temples, should be specially adapted to the ear with as much care as the bridge is to the nose in each individual case. They should be hooked around the ears for constant use and be so formed as to retain the bridge at the point of selection on the nose, and thus secure a fixed position of the entire appliance. The curve of temples, as ordinarily made, is of far too great a radius. It takes its bearing behind the ear upon a limited surface, and so is liable to cut; it fails to secure a proper hold to prevent its riding upward, and it often exerts spring-pressure productive of pain and injurious to ears and nose alike.

An adapted temple, designed to fulfil the above indications and obviate these defects, has recently been constructed under my directions, and has borne the test of use so well as to justify its continued regular employment (Fig. 5). The wire of which it is made

Fig. 5.



Adapted temple.

passes back in a straight line to the top of the ear, at which point it is bent somewhat abruptly downward, and is made to conform accurately to the posterior surface of the conch close to its junction with the head, where it rests in contact with the ear, but without perceptible pressure. Asymmetry in the height of the ears, causing tilting of the frames from the level, is to be met by a compensating adjustment in the temples, *i. e.*, bending the temple upward on the side of the higher or downward on the side of the lower ear—or both—and so dividing the result between the two sides. The glasses should be slightly inclined from the perpendicular, so as to bring the lower edges somewhat nearer the face than the upper, which is to be effected by giving the temples the appropriate angulation at their junction with the hinges when it is impracticable to change the direction of the hinges themselves.

The material of the frames should usually be gold of a good quality and of a weight as light as is consistent with strength and steadiness. Steel rusts too readily and is not well adapted to the adjustments frequently required—more especially in the temples. Silver is so soft as to be almost worthless. The lenses themselves should usually be as large as the face of the wearer permits: seldom less than 28x38 mm. for an adult, and not infrequently as large as 29x40 or 30x42 mm., in order that the eyes may be well covered in their ordinary lateral movements. Such large lenses are hardly more conspicuous than small ones—especially if frameless glasses be used—because they allow the eye itself to be easily seen. The reflections from the edges of frameless glasses which are so annoying to some persons may be avoided by slightly dulling the polish on the lower edge; the source of this reflected light being usually at or above the level of the eyes, the reflection enters the eye from this edge alone.

The glasses should be worn as close to the eyes as possible, without touching the lashes. Occasionally, where the lashes are especially long, with feathery or uneven ends, they should be neatly trimmed with the scissors—a little procedure best practised when the eyes are closed.

It is also to be borne in mind that the subject has an artistic aspect, and that by giving proper consideration to this phase much can be done to remove the opprobrium which frequently attaches to the wearing of glasses. The neat adjustment of a pair of frameless gold-mounted spectacles is doubtless the best that can be accomplished with spectacles in this respect.

In the above it will be seen I have limited myself to a description of no one form of bridge, nor even of a number of special forms, but the effort has been made rather to demonstrate the mechanical principles involved in the construction and adaptation of spectacle-frames suitable to all the requirements of practice. By the means proposed it is practicable to secure the correct position of the glasses before the eye, together with comfort to the wearer and a satisfactory artistic effect, thus fulfilling the three principal indications of spectacle-mounting.

DISCUSSION.

DR. EDWARD JACKSON: One of the difficulties I have met with in having opticians fit frames, and in making students understand how frames should fit, is in regard to the location of this "point of selection," to which Dr. Thomas refers. It is not any point arbitrarily chosen, but is, in each case, rigidly determined by the form of the face. To it the traction of the temples constantly tends to bring the bridge. The bridge placed above it is drawn down, or below it is drawn up toward it and comes to rest upon it.

A point which has recently come to my notice in fitting frames is that the plane of the temples must pass through that part of the surface of the bridge that bears upon the nose. If it passes above or below this it tends to tilt the bridge, so that its edge bears on the nose instead of the flat surface. To effect the proper position it will sometimes be needful to attach the bridge and the joint for the temple, not at opposite extremities of the horizontal diameter of the lens ellipse, but at the extremities of a shorter chord lying above or below this diameter.

DR. GEORGE M. GOULD: I wish to speak on one point brought up by Dr. Thomas, and that is the reflection from the edge of the rimless glasses. I have had patients who could not wear glasses on account of the annoyance caused by this reflection. Last year, in *Knapp's Archives*, I described a little device of my friend, Dr. Rhoades, by which the edge of the glass was beveled on a plane with the pupil. In this way all reflection is avoided. The only objection is that this exaggerates the reflection to the beholder.

In reference to the effects of pressure of the bridge on the nose, I had a case last week which brought a new phase of this matter before me. A couple of months ago I applied glasses to a patient with specific rhinitis. Following this the nose ulcerated near the point of pressure, and several pieces of bone were discharged. I do not think that it was due altogether to misfitting of the frame, but principally to the fact that the skin was so sensitive that the least pressure caused trouble. It, however, gave me a lesson not to apply glasses in specific rhinitis in an acute stage.

The whole of the paper of Dr. Thomas is a corollary to the great fact that the optician should be an educated mechanic. The optician stands in the same relation to the oculist that the druggist stands to the physician. Until the optician learns to take a pride in his profession we shall not have well-fitting glasses, unless we are constantly on the watch. We should, therefore, do all that we can to elevate and encourage the dignity of the optician's profession.

DR. THOMAS: I am glad to hear the suggestions of Dr. Jackson in regard to the line of draught and the location of the temples. I think that there are cases in which this may make a good deal of difference, and it is a point which hitherto I have not taken into account.

The bridge has had a widely extended use for a number of years, and the only reason for bringing the subject forward now is that it is not perfectly understood by ophthalmologists and opticians. It is a bridge of wide adaptability, and is capable of being converted into a great variety of special forms, some of which have been here shown.

HANAU, of Zurich, has successfully transferred squamous-celled carcinoma from a rat with such a growth on the vulva to a series of other rats, while Wehr has transferred vaginal carcinoma from one dog to another.

The Polyclinic.

MEDICO-CHIRURGICAL COLLEGE.

ATAXIC symptoms occurring in the course of a typhoid fever are justly dreaded, indicating the imminent danger of death from nervous breakdown. But in one such case marked and speedy improvement occurred when the oil of turpentine was added to the sulpho-carbolate that had formed the previous treatment. Wood, it will be recollected, introduced this drug as a remedy only when the symptoms indicated the approach of perforation.—*Waugh.*

Flatulence is sometimes quite difficult to relieve. In one very troublesome case some benefit was obtained from the administration of hydrastis and oil of cajeput.—*Waugh.*

A gentleman complained of vertigo, that was felt especially whenever he arose from the recumbent posture; also when he became fatigued. An examination of his heart showed the first sound notably weak at the base. Strychnine was ordered, in doses of gr. $\frac{1}{60}$, ter in die, with prompt relief.—*Waugh.*

The best diet for typhoid fever consists of raw, scraped beef, raw white of egg, café au lait, peptonized milk, Carnrick's and Nestle's milk foods, beef peptonoids, and bovine. These should be properly alternated, and given at intervals of four hours, persisting with those that are best borne and most palatable. Thirst may be relieved by sucking ice, or by shaddock juice, which, if cold, is very acceptable to the patient. Apollinaris water is relished by most persons with fever.—*Waugh.*

COOPER HOSPITAL.

IODOL for dressing wounds, chancres, etc., can be resorted to with perfect confidence in its antiseptic properties. It has the added advantage of being almost odorless, and when we apply it we spare our sensitive patients the mental distress entailed by the unpleasant smell of iodoform.—*Strock.*

In a case of compound, comminuted fracture at the elbow joint that had not received prompt attention, in which the swelling was so great as to completely stop the flow of blood in the ulnar and radial arteries, and gangrene was imminent, the circulation was restored and the threatened amputation averted by placing the limb in an extended position.—*Strock.*

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Reported by J. T. TAYLOR, M.D.

ACASE was presented to the class, with the following history: Six months ago began to have attacks of vomiting, which have been continuous since; the memory is impaired; there is internal strabismus of the right eye; no history of convulsions; impairment of the power of the right arm and leg; with diminished reflexes of the same side; when the patient laughs, the mouth is drawn to the left side; at times there is giddiness; early in the case there was frontal headache; heart sounds normal; urine normal. A diagnosis was made of a tumor at or near the pons varolii. The treatment prescribed was the iodide of potassium in ten-grain doses three times a day.

For a case of incontinence of urine was given:

R.—Auri et sodii chloridi,
Ext. belladonnæ.....āā gr. $\frac{1}{8}$.
M.—Ft. in pil.
Sig. Three times a day, gradually increased.

In a case of "cold abscess," Prof. Keen first evacuated the contents with a vacuum aspirator, then injected the cavity with warm boiled water, followed by an injection of a drachm and a half of iodoform and ether.

For a case of asthma, with loud râles heard all over the chest; harsh respiration; cough, dry at first, now becoming moist; clearness on percussion; moderate fever, was ordered:

R.—Ammonii chloridi..... gr. x.
Ammonii carb..... gr. v.
Liq. potassii citratis..... f3j.
M.—S. Every three or four hours, with five grains of Dover's powder at night.

For the asthmatic seizures, iodide of potassium or antipyrine, with occasionally a laxative.

Dr. Stelwagon, in treating a case of comedo, advised the use of saline laxatives, and locally tincture of sapo-viridis; to be applied with a flannel rag, first dipped and wrung out of hot water, then a drachm of the tincture poured on, and applied by rubbing in thoroughly.

Also, the application of the following stimulating lotion:

R.—Tinct. cantharidis..... f3iv.
Tinct. capsici..... f3j.
Ol. ricini..... f3ss.
Glycerini..... q. s. ad f3iv.

Prof. Parvin says that in six to eight per cent. of pregnant cases, pregnancy runs over three hundred days, and even to three hundred and twenty days.

Dr. Rex presented a case of scurvy in a boy ten years old, with this history: Maternal history of phthisis; he presents himself for the relief of a constant cough; aching of the limbs; pains in the back; anorexia; gums swollen, spongy, and at times bleeding. He was directed to take light suppers, plenty of exercise; his diet to consist chiefly of green vegetables, finely divided by passing through a sieve, milk, lemon juice, oranges, beef-tea, and, in conjunction with this, syrup hypophosphites comp. f3j three times daily.

Prof. Parvin, in speaking of the treatment of endometritis, said the patient should be put to bed, given a saline purgative and antiseptic injections. This may abort an attack. Make use of warm baths; later, astringent injections. There is nothing better in this complaint than the injection of a teaspoonful of creolin to a quart of boiling water, or the application of Churchill's tincture of iodine.

Prof. J. Solis-Cohen says a good plan to check hemorrhage from the nose is to take a long narrow strip of gauze, about three feet long and an inch wide, then with a probe carried along the floor of the nose pack in one foot of the gauze; the second foot should be packed along the roof of the nose, and the remainder packed in between by means of a string through the posterior nares. This is much better than plugging.

A man fifty-eight years of age was passing one hundred and twenty-eight ounces of urine a day; having a

specific gravity of 1.032, and containing sugar. The patient complained of great thirst; a dry, itching skin; constipation, and there was a very great loss of flesh. He was placed on codeine, gr. $\frac{1}{2}$ in pill, three times a day; together with a carefully regulated diet, excluding all starchy or saccharine articles of food. The following day the urine had dropped to sixty ounces, and a week later was reduced to about the normal amount, containing a very small percentage of sugar.

A case of hydrocele, which had been tapped a number of times without eradicating the trouble, and which also had been injected with tincture of iodine without effect, was treated by passing a silk seton from above downward through the sac, an operation strongly recommended by the late Prof. S. D. Gross.

For a case of eczema of the head in children, Dr. Rhoades strongly recommends the following formula:

R.—Acid. salicylici..... gr. xx.
Acid. carbolic..... gtt. v.
Ung. petrolati..... f3j.
M.—Ft. ung.
Sig. Warm, and rub in thoroughly night and morning.

A case of nervous cough, occurring in a child of four years, which came on after an attack of measles. The cough is worse at night, especially in the early morning hours. The face became flushed at times; the child was constantly restless, and exhibited evidence of gradually approaching chorea. Cod-liver oil had been given, which relieved the cough for a time.

In speaking of the case Dr. Rex said that the administration of any oily substance, as cod-liver oil or a glass of warm milk at bedtime, would almost invariably relieve a case of irritable cough. In point of treatment he said rest in bed was of the first importance, and should be insisted upon, together with a warm bath each morning, a diet of easily digested, highly nutritious food. Milk, to which might be added:

R.—Sodii bicarb. gr. xv.
Pancreatin..... gr. v.

Fowler's solution, gtt. ij, to be increased. If it should nauseate, stop for a day or two, and then increase until the physiological effects are produced. It is better to wait for a while than to decrease the dose of arsenic.

For a case of typhlitis, in which there was a history of six attacks, there was pain in the hypogastrium and right iliac region, tender abdomen, with constipation, the treatment recommended was rest in bed, mercurial laxatives, hot fomentations, and repeated blistering (opium to relieve the pain), and:

R.—Potassii iodidi..... gr. v.
Tinct. belladonnæ..... gtt. iij.
M.—Sig. Ter die.

2. Excise the appendix.

At a recent clinic a patient was presented with carcinoma of the colon; the previous history was negative. The present trouble began about fifteen months ago, when the patient became extremely constipated. This was followed in six months afterward by diarrhoea. There was finally paralysis of the spincter muscles. On examination, a hard mass was found in the left iliac region, extending for a considerable distance along the intestinal track. For the relief of the patient a right abdominal colotomy was performed.

Dr. Wirgman, for a case of rheumatoid arthritis' recommended 10 grains of salicylate of lithium three times a day, and the application to the affected joints of the following ointment:

R.—Ung. iodi. comp..... 3j.
Ext. belladonnæ fl..... 3ij.
Ext. opii..... ʒ.

For a case of parenchymatous nephritis presenting these symptoms: Shortness of breath, cough, attacks of temporary blindness, and, at times, giddiness; cedema of the legs, albumin in the urine. These symptoms came on some time after an attack of the "grippe." The following course of treatment was ordered: Absolute rest, free purgation with calomel, jalap, or magnesia; act upon the skin with pilocarpine; hot bottles along the spine and legs, and following formula:

R.—Tr. digitalis..... ʒx.
Ol. juniperi..... ʒx.
Potassii sulph.,
Potassii acitatis āā gr. xx.
Aquæ distil. f3ij.

A carefully regulated diet, chiefly milk. No starchy or saccharine articles of food.

Prof. Brinton, in lecturing to the class on fistula in ano, said that an operation could be done either by laying open the fistulous track with a knife, or by passing a ligature through the opening and tying it, allowing it to cut its way out. In operating with the knife great care should be exercised, so as not to cut the sphincter muscle twice, otherwise incontinence of fæces will be the result. After the operation the bowels should be locked up for two or three days. In giving an injection to unload the bowels, be extremely careful not to inject the fluid into the peritoneal cavity.

In a case of constipation presented at the clinic, the patient, a man fifty-six years of age, had previously enjoyed good health, until two years ago, when he became obstinately constipated; within the last month he said there had been five or six hemorrhages in the stools; there was considerable loss of flesh; dull, heavy pain in the back and abdomen; urine of high specific gravity; tongue slightly furred. The following treatment was advised: After the bowels had been moved freely by catharsis, the patient was to take a pill composed of

R.—Ext. cascarae sagradæ..... gr. ij.
Ext. nucis vomicæ..... gr. ʒ.
Ext. belladonnæ alco gr. ʒ.

M.—Ft. in pill.
Sig. Three times a day.

In the case of a child a few months old, suffering from eczema of the face, Dr. Stelwagon prescribed:

R.—Ung. picis liquida..... f3j.
Ung. zinci oxidii..... f3vij.
Sig. To be applied locally.

In a case of goitre, occurring in a woman some months advanced in pregnancy, Prof. Parvin ordered the application of an ointment of:

R.—Hydrargyri iodidi rubri..... gr. xlv.
Cerati simplicis..... f3j.

CREMATION is quite popular in Japan. At six of the eight crematories in the city of Tokyo over 12,000 bodies were incinerated during 1889, at a cost below \$19,000.

The Times and Register

A Weekly Journal of Medicine and Surgery.

WILLIAM F. WAUGH, A.M., M.D., Managing Editor.
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ABDOMINAL TUBERCULOSIS.

IN the *Lancet-Clinic*, Dr. H. W. French reports a case of more than ordinary interest. It relates to a woman in whom the symptoms of tubercular peritonitis were found. The abdomen was uniformly distended.

Bimanual palpation failed to detect the wave of ordinary ascitic fluid, but it revealed the presence of a denser accumulation which made the abdomen more uniformly elastic than would have been the case had the fluid been of lower specific gravity.

The family history was bad, pointing strongly to the probability of tuberculosis. The patient indulged in an indigestible supper; was seized with vomiting, and threw up a very large quantity of "green dense serum which contained in several places circular or spherical masses of a denser serum, which in turn contained ash-colored and yellow masses of a cheesy consistence. These distinct masses of serum were of such greater density than the main portion that, on agitating the vessel and giving it a circular movement, they retained their distinctiveness from the greater portion on allowing it to subside."

The quantity vomited was estimated to be a bucketful—about two and a half gallons.

The abdomen was reduced to its normal size.

The woman was nourished by rectal enemas; symptoms of heart failure were treated with opium and digitalis; and she made a good recovery.

It is unfortunate that Dr. French allowed so interesting a case to be lost to science, by neglecting to verify his diagnosis. When such abundant material was available, it was an easy matter to subject it to a microscopic examination. For want of this, it must remain a question whether this was a case of tuberculosis or not.

The mechanism of the evacuation is also obscure. From the fact that the patient had partaken of an indigestible supper there could not have been any serious gastric involvement, ulcer, pressure from without, or any other disease of the viscus that could

lead to perforation. Pressure from within would have caused the escape of food into the peritoneal cavity, instead of evacuating the serum into the stomach.

Altogether, it must be a source of great regret to every truly scientific mind that no opportunity for an autopsy presented itself. And to the laparotomist the further regret is occasioned of a lost opportunity, in that the recovery did not ensue from an abdominal section.

Annotations.

CYCLOPEDIAS.

WE desire to speak a word of commendation for John B. Alden's little magazine, entitled "Knowledge." It is a monthly cyclopedia; containing such information as one seeks in a cyclopedia, but of later date than any as yet published. It supplies the new matter that is constantly being added to that already in print in works of reference.

About cyclopedias. No house that contains growing children should be without Chambers', Appleton's and the Britannica; also Webster's Unabridged, and Bradley's magnificent atlas. Then, whenever any subject comes up, the children should be taught to refer to these works. The result will be that a surprising amount of general information will be insensibly acquired by them, without apparent effort. A few years of this practice will render any one the possessor of a fund of varied information that will render him capable of conversing intelligently on any subject; or, at least, of being an intelligent listener. Each of these cyclopedias covers some ground better than the others. Chambers' is particularly good on all subjects connected with the British possessions, especially India; while on American matters, such as the late civil war, it is simply ridiculous, from its strong Southern bias. Appleton's excels in American affairs, but not so much as it should; while it is weak in historical matters. The Britannica fairly makes up for the deficiencies of both.

LOCAL NUTRITION.

IN the *Dixie Doctor*, Dr. W. H. May describes a mode of treating indolent ulcers that bids fair to prove of considerable value. The case was an ordinary leg-ulcer, of two years' duration; and "all other treatment had failed," as a matter of course, Dr. May then injected one dram of a mixture of bovine — one part — with boiling water — three parts — at a temperature of 110° F., at six different places around the ulcer, one inch from its margin. This was repeated every other day; all other treatment being discontinued, except salines to regulate bowels. The ulcer was frequently washed with hot, sterilized water, and kept covered with bichloride cotton. In one week healthy granulations began to appear, and in two months the ulcer had so far healed that all treatment was discontinued, except petrolatum dressing. Two months later it was entirely well.

Local nutrition is a new idea in therapeutics, and one which is susceptible of extended applications, if this first favorable experience with it shall be confirmed by further trials. On its face, the theory is more than plausible. The undeniably good effects of inunctions with hot animal fats in general wasting show that nutritives can be introduced through the

skin. If local diseases be due to local denutrition, there is every reason to expect good from local nutrition.

Would injections of bovine relieve the pains of senile gangrene?

IN Italy no proprietary medicine may be offered for sale unless it is first sanctioned by the Superior Sanitary Council. Over two hundred such articles have been rejected, and at one meeting every article presented was disapproved, on the grounds that they all contained ingredients that cannot be used with safety except under the direction of a physician; many were actually dangerous, and many others possessed none of the virtues attributed to them.

The effete monarchies may count one more point as against the free republic. Progress in civilization entails differentiation in the occupations of citizens, and as this obtains, the liberty of each to follow the dictates of his own will becomes circumscribed by the rights of others. The doctrine of "every man his own doctor" belongs to a lower grade of development than that in which the one becomes a doctor exclusively.

There is, however, a demand for simple remedies for domestic use that will be satisfied by somebody; and no law could be enforced that would take away the right to use home remedies. It would be a wise thing if the medical profession were to recognize this fact, and supplant the nostrums now in use by a judiciously-selected case of household remedies, with a book of directions for their administration, and of instructions as to the proper limits of such home medication.

Judicious law-makers deal with things as they are, and not with ideal states as they exist in the minds of the theorists. Every nostrum that meets a real need should be replaced by a similar preparation; the dangerous ones should be marked with the brand of disapproval.

HYPNOTISM AND HYPNOTIC SUGGESTION.

HAMILTON OSGOOD, M.D., of Boston (*Boston M. and S. Jour.*), who has employed the method of treatment by hypnotism and hypnotic suggestion in a large variety of cases, including women of great delicacy of constitution and marked hysterical tendencies, is convinced that the assertions of the leading hypnotizers of Europe with reference to the harmlessness of this treatment, when intelligently applied, are true. The possibility of idiosyncrasy must be always borne in mind, however, although Osgood has never met it in any of the patients whom he has hypnotized; nor have any other hypnotizers who confine themselves to the Nancy method. As to the assertion that hysterical patients are unfit subjects for hypnotic suggestion, from the popular belief that their condition is aggravated under its influence, he cites a case occurring in his own practice, that of a young woman, who, after some years of increasingly-intense hysteria, became so violent that she was sent to the McLean Asylum, where she remained twelve months. Leaving that institution, she was one day seized with a convulsive attack, because of fright caused by sudden palpitation of the heart. Hypnotic suggestions were employed, since which time, with occasional applications of hypnotic suggestion, she has been rapidly improving in physical and mental condition. Van Ken-terghem and Van Eeden, together with Moll, assert that the dangers of hypnotism lie rather in insuffi-

cient technical knowledge than in hypnotism itself, and they urge the abstaining from suggestions which do not accord with the normal functions of the organism. Bésillon, of Paris, has been treating epilepsy by hypnotic suggestion, and has met with great success.

Letters to the Editor.

THE SECRET OF SUCCESS.

AFTER a little rest, and being somewhat fixed in our new home, I will try to comply, briefly, with your kind request, viz.: "That out of my long practice and experience I could find matter that will interest the younger members," etc.

Yes, certainly, if I only had them before me most gladly would I give them the true secret of success in practice. I would fix it in their minds that the whole science of medicine is contained in two words. Yes, all that any physician can do when called to attend the sick is to *cleanse* and *strengthen*, or, in other words, to help nature do its work. You may attend all the lectures and clinics and read everything that is to be found in the books, but, remember, that in every and in all cases there are but two things to be done—taking it for granted that you are well qualified for your work, and understand your remedies, and know how to use them—the great object and secret of success is to help nature do its work, to cleanse and strengthen.

J. B. WILLIAMS, M.D.

WILKINSBURG, PA.

HYPERIDROSIS.

ON page 531 (as far as I remember) of your worthy journal for December 6, 1890, I found the following lines:

"Habitually moist feet.—This is found most frequently in such persons as live well and take little exercise . . . the best results of treatment have been obtained from the employment . . . oxide of zinc . . ."

From my own experience I am able to state that hyperidrosis—habitually moist feet—I found mostly in those persons who take even *much* exercise. If the observations of the author of the above statement and those of my own are both correct, we can draw a conclusion therefrom—that hyperidrosis may be peculiar to those who take little and those who take much exercise.

As to the remedies offered by the author, I cannot perfectly agree with him. I do not deny that zincum, plumbum, alumen, and other astringent agents, which many physicians are eager to use, especially *per se*, will stop perspiration, but we have to bear in mind that perspiration is a physiological function, which, if interfered with, might produce bad results. Therefore, in such a case, the indication for the treatment is not to stop the perspiration, and all we have to do is to *diminish* its quantity. If any habitual and necessary secretion be stopped the result is injurious to the organism—a fact which may be confirmed by constipatio alvi, ischuria, suppressio mensium, etc., and the secretion of sweat is but a necessary and habitual function of the organism, whether it be in the axillas, on the back, chest, or on the feet. Hufeland (*Enchiridion medicum*), even in the first half of the present century, called the attention of the medical profession to the injurious effects of astringents

when used often and *per se* in such cases. To my mind the best remedy at present to be applied is daily washings of the feet, frequent change of stockings, and powdering the feet and inside the stockings with the following powdered combination :

R.—Acidi salicylici..... 3ss.
 Alum. crud. pulv..... 3j.
 Amyli triti..... 3iv.
 Ol. bergamoti..... gtt.x.
 Spiriti vini..... 3j.
 Talc. venet..... 3ij.

M.—S. As directed.

Or the following simple combination :

R.—Acidi salicylici..... ʒiiss.
 Amyli..... ʒviij.
 Talc. venet. pulv..... 3ij.—3vij.

M.—S. As directed.

Either will dispel also the disagreeable odor peculiar to these cases. S. SEILIKOVITCH.
 338 SPRUCE STREET.

SOME ALARMING SYMPTOMS FROM ANTI-FEBRINE.

MRS. T. A., aged thirty-seven years, of a nervous temperament, had pneumonia of the apex of the right lung ten years ago; has since had three attacks of pleurisy. General health, fair. Mrs. A. has had periodical attacks of neuralgia of the fifth pair of nerves for one year, due to ovarian irritation; has an attack usually before menstruation, lasting for one day, and the last day of her monthly periods. I was called to see her during one of these attacks, and found her suffering from an attack of neuralgia. I prescribed for her antifebrine in 5-grain doses, to be taken every hour. She took three powders, when, in about an hour, she had some alarming symptoms—skin, cold and blue; the hands and arms exposed to the air were quite blue; but where the arms were covered with clothing, were not as well marked. Feet and legs were almost of a purple color, extending to the knees; nails were blue, and cold. Mucous membrane of nose, lips, gums, pharynx, and conjunctivæ of eyes were of a dark, cyanotic color.

Heart's Action.—Normal as to number of contractions, but feeble.

Lungs.—Respiration, 20; expiration, prolonged; vesicular breathing, well marked over chest.

Nervous Symptoms.—The whole body had a numb feeling, and felt as though the parts needed to be kept moving, and could not rest unless the extremities were moving. A strange, indescribable feeling came over the patient, and continued for six hours. Temperature, 99° F.

After these symptoms had continued for six hours, they commenced to ameliorate, and in twelve hours had entirely disappeared; but the patient remained weak for two or three days.

This was the most decided case of the effects of antifebrine. I have not read of any case in which those peculiar symptoms were produced by such small doses, and not administered oftener.

J. W. FRANKHAUSER.

READING, PA.

Book Notices.

KOCH'S REMEDY, in relation specially to Throat Consumption. By LENNOX BROWNE, F.R.C.S., Ed. Illustrated by 31 cases, and by 50 original engravings and diagrams. Philadelphia: Lea, Bros. & Co., 1891. Cloth, pp. 114.

We are now reaching a point at which we may look for some sober, thoughtful reports on the Koch treatment from men of a judicial frame of mind, and possessed of the necessary facilities for study. Among these, Dr. Browne's book comes as the first in the field. His aims are stated to be :

1. To show that the local effects can be better studied in the throat than elsewhere.

2. To consider whether the therapeutic and diagnostic effects cannot be more satisfactorily gauged in the larynx than in any other internal organ.

3. He endeavors to explain the general phenomena of the remedy and the details of its administration, so as to serve as a guide to those who desire to adopt the treatment.

The book will receive an eager welcome from the profession.

FOURTEENTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE STATE OF NEW JERSEY, AND REPORT OF THE BUREAU OF VITAL STATISTICS, 1890. Trenton, N. J.

This volume contains the Secretary's Report, Health Inspector's Guide, Sewerage and Drainage of Trenton, Sewers of Mt. Holly, Deterioration of Water, Ground Water, Lightning Conductors, Trades and Occupations as Related to Public Health, Tenement Houses, Report of the New Jersey Sanitary Association, Reports from Local Boards, Medical Registry, Vital Statistics, The Influenza Epidemic, Typhoid Fever, Dysentery, and Diphtheria, Transportation of the Dead, Climatology.

These reports are so important and so interesting that it would be well if some plan could be devised by which they could be brought directly into the hands of the people at large. Valuable information, of vital importance to every citizen, is buried in reports that do not reach any appreciable percentage of those who ought to read them. How many tenants know their own rights and their landlord's duties as to sanitary matters? How many laborers inhale the fumes of metals, etc., without knowing that these noxious agents are destroying their health needlessly, as their employers can and should abate the nuisance? The benefit that would inure from any method of popularizing a knowledge of hygiene is simply incalculable.

SEXUAL NEURASTHENIA.—Its Hygiene, Causes, Symptoms and Treatment, with a chapter on Diet for the Nervous. By GEORGE M. BEARD, A.M., M.D. Edited by A. D. ROCKWELL, A.M., M.D. In one volume. Crown 8vo. Nearly 300 pages. \$2.75. New York: E. B. Treat, publisher, 5 Cooper Union.

The philosophy of this work is based on the theory that there is a special and very important and very frequent clinical variety of neurasthenia (nervous exhaustion) to which the term sexual neurasthenia (sexual exhaustion) may properly be applied.

The long familiar local conditions of genital debility in the male—impotence and spermatorrhœa, prostatic rhœa, irritable prostate—which have hitherto been almost universally described as diseases by themselves, are philosophically and clinically analyzed.

The subject is restricted mainly to sexual exhaustion as it exists in the male, for the reason that the symptoms of neurasthenia, as it exists in females, are, and for a long time have been, understood and recognized. Cases analogous to those in females are dismissed as hypochondriacs, just as females suffering from now clearly explained uterine and ovarian disorders were formerly dismissed as hysterics.

This view of the relation of the reproductive system to nervous diseases is in accordance with facts that are verifiable and abundant; that in men as in women, a large group of nervous symptoms, which are very common indeed, would not exist but for morbid states of the reproductive system.—[From Dr. Beard's *Introduction*.

The causes and symptoms of forty-three cases are given, followed by a chapter on Diet for the Nervous, with treatment and formulas. Third edition enlarged.

THE INTERNATIONAL MEDICAL, ANNUAL, AND PRACTITIONER'S INDEX FOR 1891. Edited by P. W. WILLIAMS, M.D., Secretary of Staff, assisted by a corps of thirty-eight collaborators—European and American—specialists in their several departments. 600 octavo pages. Illustrated. \$2.75. New York: E. B. Treat, publisher, 5 Cooper Union.

The ninth yearly issue of this valuable one-volume reference work is to hand; and it richly deserves and perpetuates the enviable reputation which its predecessors have made, for selection of material, accuracy of statement, and great usefulness. The corps of department editors, in number and ability, surpass that of last year. Its numerous illustrations—many of which are in colors—make the "Annual" more than ever welcome to the profession, as providing, at a reasonable outlay, the handiest and best résumé of medical progress yet offered.

Part I comprises the New Remedies, together with a Review of the Therapeutic Progress of the Year.

Part II is devoted to Special Articles on Diagnosis: the first on Deformities of the Hand, and Their Diagnostic Value in Nerve Lesions; the second on the Character of the Sputum as an Aid to Diagnosis.

Part III, comprising the major portion of the book, is given to the consideration of New Treatment, and is a retrospect of the year's work, with numerous Original Articles by eminent authorities.

The fourth—and last—part is made up of Miscellaneous Articles, such as Recent Improvements in Sanitation; Concerning Climatology and Hygiene; Alcoholic Inebriety, and the Results of Asylum Treatment; Improvements in Pharmacy; Books of the Year, etc.

The arrangement of the work is alphabetical, and, with its complete index, makes it a reference book of rare worth.

In short, the "Annual" is what it claims to be—a recapitulation of the year's progress in medicine, serving to keep the practitioner abreast of the times with reference to the medical literature of the world. Price, the same as in previous years—\$2.75.

Pamphlets.

Sulfonal-bayer. Recent Observations on Its Value as a Hypnotic. New York: W. H. Schieffelin & Co. 1891.

Nasal Intubation. By D. H. Goodwillie, M. D. Reprinted from *The New York Medical Journal* for May 17, 1890.

Deafness as a Result of Nasal and Dental Diseases. By D. H. Goodwillie, M. D. Reprinted from *The New York Medical Journal* for August 24, 1889.

The Medical Digest.

FROM an extended experience of years, with hundreds of cases, I am forced to regard eye strain as the cause in over seventy-five per cent. of all the cases of functional headache and migraine.

—Callan, *Jour. Am. Med. Assoc.*

DEODORIZATION OF IODOFORM BY CREOLIN.—Dr. Ludwig Váci, a practitioner in Nagy-Karoly, communicates to the *Medicinisch-chirurgische Rundschau* his discovery of the power of creolin to deodorize iodoform. He had prescribed an ointment consisting of one part of creolin, two of iodoform, and twenty-five parts of vaseline. On the following day he was surprised that not only was the usual color of iodoform ointment changed, but that there was no smell of iodoform, and only a slight smell of creolin. He points out how important it is in many cases that the presence of iodoform should not be known by its odor, and considers creolin the very best of all deodorizing drugs for the same. It not only does not irritate, but it is also itself a good disinfectant.

—*Lancet*.

THE *Sei-i-Kwai Medical Journal* contains the report of an investigation of distoma pulmonalis, in the Okayama prefecture. Great hardships were caused by the prevalence of this disease at Lama, the town being quarantined by its neighbors. The disease is attributed to infected drinking-water. Males are affected more than twice as often as females. The symptoms are: Cough, hemoptysis, sputa resembling "the intestines of a fish." Patients are usually able to do some work. In the sputa are to be found the eggs of the distoma, and Charcot's crystals, mixed with pus cells and partly disintegrated red corpuscles. The disease continues for years; not necessarily shortening life, but rendering the victim unable to do hard work. It attacks persons from ten to thirty years old most frequently.

RESUSCITATIVE EFFORTS IN THE NEW-BORN.—When it is stated by an authority of eminence that, "I believe the attitude of the profession in general, is one of incredulity, as regards the efficacy of the means at our disposal to restore the life of children in the more desperate cases of asphyxia. In my experience it is the usual procedure to spank the child, to immerse it in hot and cold water, and then to wrap it in warm clothes and place it by the fire to die. Yet the object of medical practice is to save life, and for my part I regard the rescuing of a new-born infant from impending death to be as distinctly a professional triumph as the saving of life by ovariectomy, by Caesarian section, or by the operation for appendicitis," it becomes the bounden duty of the profession to turn for a moment to a due consideration of the statement, and a thought—or more than thought—of the real possibilities of reducing the number of still-births. We can scarcely agree with the author in believing that the resuscitation of the still-born is to be regarded as an achievement of equal greatness as the conserving of a developed life by the surgical procedures above named; yet the importance of rescuing an infant life—where two lives are not in immediate peril—is not to be determined by a comparison. It is clear that if well-directed and patiently-continued efforts will restore life in a goodly number of still-births, then the professional course to pursue admits of no discussion, but does call for more elucidation, a wider and deeper interest, and a continued investigation with a view of both limiting the known causes of still-births, and the perfection of those methods will the more readily insure the return of viability to the one whose spark of life was supposed to have departed.

—*Jour. Am. Med. Assoc.*

THE Chicago College of Physicians and Surgeons graduated a class of forty-two, March 24.

At the Edinburgh Medico Chirurgical Society, Dr. Bramwell read a paper entitled *The Symptoms of Myxœdema and of Exophthalmic Goitre Contrasted*. In both of these affections the thyroid gland was affected. In the former it was atrophied and its functions diminished, while in the latter it became hypertrophied and its functions increased. In myxœdema the symptoms came on in a slow and insidious way, generally late in life, and usually in married women; in exophthalmos they often set in suddenly, as after a fright, earlier in life, and in unmarried, or if married, sterile women. The temperature in myxœdema was subnormal, and patients felt cold, the skin was dry and harsh, and its electrical resistance increased; in exophthalmos the temperature was subject to elevations, the skin soft and moist, and its electrical resistance diminished. Constipation and amenorrhœa were usually present in the former affection, while in the latter diarrhœa and menorrhagia were frequently met with. Nervousness was not present in myxœdema, but was a constant symptom in exophthalmos. Myxœdema was said to be the result of degeneration of the thyroid gland, and might be secondary to some nerve lesion. In cases where the thyroid became atrophied or its functions diminished, or where it had been extirpated, these symptoms of myxœdema appeared. The symptoms of exophthalmos, on the other hand, were the result of excessive activity of the function of the thyroid, or might be due to perverted function of the gland. The pathology of exophthalmos was obscure, but the primary cause was apparently nervous, and due to some derangement of nerve centres.—*Med. Press.*

THE ENDOSCOPE IN URETHRAL AFFECTIONS.—Lewis (*Medical Herald*, March, 1891,) prefers the endoscope of calibre 25 (French), which he regards as most convenient. Although straight and only four inches in length, it is easily capable of passing through the various curves of the canal and reaching to the bladder, a depth of eight or nine inches from the meatus, and this, when carefully introduced, without suffering on the part of the patient. This is possible from the compressibility of the greater part of the urethra. The advantage of the short tube is that the parts to be studied and treated are brought so much nearer the eye. Any undue sensitiveness of the urethra may be allayed by cocaine. The instrument is pushed in until the inner end penetrates the triangular ligament; then the outer end is gradually brought downward, at the same time making the inner end hug the roof of the urethra tightly in order that it may keep in the axis of the ascending curve in this neighborhood. When it has entered to the desired depth, the obturator, that has served to protect the mucous membrane from injury by the rather sharp edge of the endoscope, is withdrawn, the light thrown in, and the field mopped dry with absorbent cotton, and treated at leisure. With the endoscope not only are we able to diagnose intelligently and positively, but we are able to treat intelligently, limiting our medication absolutely to the affected patch. It is well to know that although the urethra cannot stand the application of strong nitrate of silver when injected in quantity, as, for instance, with the ordinary syringe, by the endoscopic method, by which the fluid is confined to limited areas, solutions as strong as sixty grains to the ounce are used without damage or an excessive amount of pain. Lewis usually begins with a solution of only moderate strength, say from five to ten grains to the ounce, gradually increasing, according to the case at hand. The treatments

are administered two or three times a week. If it is intended to go as far back as the postatic portion, it is well to have the patient urinate before hand to prevent any flooding of the operator through the endoscopic tube.

OFFICIAL REPORT ON KOCH'S TREATMENT IN PRUSSIA:—

TABLE I.—*Tuberculosis of Internal Organs.*

DISEASES.	Number of Cases Treated.	Cured.	Substantially Improved.	Improved.	Unimproved.	Died.
I.—PULMONARY TUBERCULOSIS:						
1. Early pulmonary phthisis...	242	9	72	59	93	0
(a) With laryngeal tuberculosis.....	30	0	10	6	13	0
(b) With tuberculosis of other internal organs.....	7	0	1	2	4	0
(c) With other diseases.....	8	0	0	1	6	0
2. Moderately advanced pulmonary phthisis.....	444	1	68	68	278	6
(a) With laryngeal tuberculosis.....	85	1	10	11	37	2
(b) With tuberculosis of other internal organs.....	15	0	1	4	5	2
(c) With other diseases.....	14	0	0	0	7	2
3. Very advanced pulmonary phthisis (cavities).....	246	0	7	31	162	30
(a) With laryngeal tuberculosis.....	60	0	1	4	45	5
(b) With tuberculosis of other internal organs.....	24	0	1	2	17	1
(c) With other diseases.....	16	0	0	1	7	5
I.—PULMONARY TUBERCULOSIS (all grades taken together).....	932	10	147	158	533	36
(a) With laryngeal tuberculosis.....	175	1	21	21	95	7
(b) With tuberculosis of other internal organs.....	46	0	3	8	26	3
(c) With other diseases.....	38	0	0	2	20	7
II.—LARYNGEAL TUBERCULOSIS.....	63	1	18	23	15	4
With pulmonary tuberculosis.....	45	0	16	13	12	4
III.—PLEURISY.....	13	1	0	3	9	0
IV.—PERNICIOUS ANEMIA.....	1	0	0	0	0	1
V.—TUBERCULOSIS MENINGITIS.....	4	0	0	1	1	2
VI.—PERITONEAL TUBERCULOSIS.....	14	1	3	3	4	2
VII.—INTESTINAL TUBERCULOSIS.....	1	0	1	0	0	0
VIII.—RENAL TUBERCULOSIS.....	4	0	0	0	4	0
IX.—URETHRAL and VESICAL TUBERCULOSIS.....	10	0	0	4	5	1
X.—TESTICULAR TUBERCULOSIS.....	18	0	2	2	14	0
XI.—DOUBLE TUBERCULOUS PYOSALPINX, with incipient pulmonary phthisis.....	1	0	0	0	1	0
Totals.....	1,061*	13	171	194	586	46

* The difference between the total number of cases and the number in which the result of the treatment is given is due to the fact that a few reporters give no information as to the result.

TABLE II.—*External Tuberculosis.*

DISEASES.	Number of Cases Treated.	Cured.	Substantially Improved.	Improved.	Unimproved.	Died.
I.—LUPUS.....	188	5	78	84	21	0
With tuberculosis of internal organs.....	27	0	5	6	3	0
II.—TUBERCULOSIS OF SINGLE BONES AND JOINTS.....	397	9	51	119	211	6
With tuberculosis of internal organs.....	48	0	1	4	22	1
III.—TUBERCULOSIS OF SEVERAL BONES AND JOINTS.....	40	0	3	12	23	2
With tuberculosis of internal organs.....	10	0	0	1	7	2
IV.—TUBERCULOSIS OF LYMPH GLANDS.....	38	0	9	7	22	0
With tuberculosis of internal organs.....	8	0	1	0	7	0
V.—TUBERCULOSIS OF SOFT PARTS.....	8	0	1	4	3	0
VI.—TUBERCULOSIS OF SCARS.....	4	0	0	3	1	0
VII.—SCROFULODERMA.....	6	1	2	3	0	0
VIII.—LEPRA.....	2	0	0	1	1	0
IX.—RODENT ULCER.....	2	0	0	1	1	0
X.—TUBERCULOUS ANAL FISTULA.....	3	0	1	0	1	1
XI.—TUBERCULOSIS OF SHEATHS OF TENDONS.....	1	0	1	0	0	0
XII.—SCROFULOUS ECZEMA.....	1	0	0	1	0	0
XIII.—SCROFULOUS KERATITIS OF BOTH EYES.....	2	0	2	0	0	0
XIV.—EAR DISEASES.....	16	0	0	2	14	0
With pulmonary tuberculosis.....	7	0	0	1	6	0
Totals.....	708	15	148	237	298	9

—*Brit. Med. Jour.*

ANTIPYRETICS IN DISEASES OF INFANCY.—Demme, in the annual report of the Berne Hospital (*Concours Médical*), relates his experience of the new antipyretics in children. In the first place, however, he holds that their employment is unnecessary in moderate pyrexia (101° to 103° F.); he prefers the application of cold damp cloths renewed every two hours; or when there is much nervous excitement or insomnia, lukewarm baths (79° to 82.5°), lasting five or ten minutes, and repeated once or twice a day. The propriety of using antipyretic drugs should be considered in cases in which there is a continuous temperature of about 104° F., and in adopting the treatment the cause of the pyrexia and the power of resistance possessed by the patient must be taken into account. These drugs are of value in enteric fever, acute rheumatism, and broncho-pneumonia; they should be used with great caution in fibrinous pneumonia, diphtheria, and the acute exanthems (measles, scarlet fever, etc.) In acute rheumatism, if there is a dislike to salicylate of soda or a tendency to diarrhoea and vomiting, he replaces it by salol. Quantity to be given daily in divided doses: salicylate of soda, 2 to 4 years, 8 to 15 grains; 5 to 10 years, 15 to 30 grains; 11 to 15 years, 38 to 45 grains; salol (in powder), 2 to 4 years, 12 to 16 grains, in three doses; 5 to 10 years, 22 to 33 or 44 grains, in three or four doses; 11 to 15 years, 33 to 45 or 60 grains, in three or four doses. In enteric fever, Demme has had good results with sulphate of thallin; he gives it in powder every two hours, each dose being for a child of 3 to 4 years, $\frac{1}{4}$ to $\frac{1}{8}$ grain; 5 to 10 years, $\frac{1}{3}$ grain; 11 to 15 years, $\frac{1}{2}$ to $\frac{3}{4}$ grain. In broncho-pneumonia, in which there is a liability to a long continuance of a high temperature and to relapses, Demme prefers antipyrine to all other antipyretics; he gives it dissolved in water with a little sugar and a few drops of cognac. He employs it also in the acute exanthemata and in serious diphtheria if the temperature becomes so high as to appear to call for an antipyretic. He gives it hourly in the following doses: 2 to 4 years, 3 to 6 grains; 5 to 10 years, 8 to $11\frac{1}{2}$ grains; 11 to 15 years, $12\frac{1}{2}$ to 15 grains. In the later stages of broncho-pneumonia, where the fever is of the hectic type, the antipyretics belonging to the aromatic series have little effect. Sulphate of quinine, on the contrary, not only hastens recovery, but actually "jugulates" the disease. He gives it in the following doses: 2 to 4 years, 3 to 6 grains; 5 to 10 years, 8 grains; 11 to 15 years, $11\frac{1}{2}$ to 15 grains.—*Brit. Med. Jour.*

CEREBRAL LESIONS ALTERING TEMPERATURE.—

1. The normal rectal temperature of a rabbit is between 101° F. and 103° F.

2. Neither an anæsthetic nor a slight operation on the brain affects the temperature much unless some special part of the brain is damaged.

3. Lesions of the corpus striatum, if not large enough to cause shock and hemorrhage, lead to a considerable rise of temperature, on the average equal on the two sides of the body, even if only one corpus striatum is damaged.

4. Lesions of the septum lucidum also cause a rise of temperature.

5. Lesions of the optic thalamus do not alter the temperature.

6. Lesions of the white matter around the corpus striatum and optic thalamus do not cause a rise of temperature.

7. Lesions of the cerebellum do not alter the temperature.

8. Lesions of the posterior part of the upper surface of the cerebral cortex of the rabbit may cause irregular alterations of temperature, which are quickly produced, and last only a short time. Sometimes the temperature falls, sometimes it rises, sometimes there are several rises and falls after one operation—characters very different from the rise of temperature produced after lesions of the corpus striatum.

9. Lesions of the crus cerebri cause a considerable rise of temperature.

No completely satisfactory explanation of these experimental results can at present be given. I have elsewhere pointed out their bearing upon evolution and upon medicine. The fact that a minute lesion in the corpus striatum can cause a considerable rise of temperature, and that the rise only lasts some hours suggest that the effect is irritative, although the central nervous system does not usually respond to mechanical stimulation; still it is quite possible that in the case under consideration the effused blood and serum act as irritants, for we know that in man unilateral convulsions may follow hemorrhage in the opposite side of the brain.

Most observers who have performed experiments with a calorimeter, and upon the amount of carbonic acid gas excreted, consider that the rise of temperature produced by lesions of the corpus striatum is due to an increased production of heat, and indeed the uniformity, the regularity, and the extent of the rise suggest this; it is interesting also to notice that the corpora striata first became well developed in warm blooded animals, but great stress must not be laid upon this as an argument until we are more sure of the precise homologues in the lower animals of the corpora striata in the upper. We are still more in the dark about the interpretation of the variations of temperature consequent upon lesions of the cortex. Considering their very irregular and rapid character, it is tempting to assume that certain parts of the cortex are concerned in maintaining the balance between the production of heat and its loss, but much evidence must be collected before anything certain can be said upon this difficult point.

—*Brit. Med. Jour.*

COLD-BATH TREATMENT OF TYPHOID FEVER.—

1. By means of the bath-treatment, systematically employed, the hospital death-rate of typhoid may be greatly reduced.

2. The reduction should amount to 50 per cent. on the previous death-rate; and that the percentage mortality to admissions should not be over 8 per cent. (always supposing the term *typhoid* to be used in its second degree of extension).

3. This result may be obtained in spite of the fact that many of the cases are unsuited to the treatment; and that much more might be expected in appropriate cases only.

4. The success is in proportion as the treatment is begun early in the disease.

5. As evidenced by the undiminished occurrence of perforation and hemorrhage, and by the fact that early admission has failed to render them less frequent, the treatment has no influence on the depth of the ulceration.

6. Since a constant percentage (about $4\frac{1}{4}$) of the cases admitted die from these accidents, no reduction in the general mortality much below 5 per cent. can be expected from the treatment, even were it possible to ensure every case being admitted under the most favorable circumstances.

7. As the result of the different liability of the sexes to these accidents, the prognosis under the bath-treatment is vastly more favorable in females than in males. For instance, in any two given cases, *cæteris paribus* and without reference to the date of fever on admission, the danger to life is but little more than half in the case of the former; while if both are admitted during the first week of the fever, this is reduced to one-quarter.

8. On the whole the lethal influence of the intestinal lesion is diminished; that the treatment effects this (*a*) directly, by moderating diarrhœa, and (*b*) indirectly, by sustaining the powers of the patient, and thereby enabling him to recover from the effects of the hemorrhage and other not necessarily fatal intestinal conditions.

9. The vast bulk of the reduction in mortality is due to the prevention of those complications and modes of death which, being more or less common to the febrile state, however induced, have been termed pyrexial. Thus (*a*) fatal pneumonia has been less than one-fourth as frequent, this being chiefly due to the rarity of the bronchial form; (*b*) brain complications have been less fatal, and brain symptoms (delirium, stupor, etc.), enormously reduced in frequency; while (*c*) it is no exaggeration to say that simple cardiac failure would have been practically expunged from the list had all the cases admitted come under treatment during the first week of the disease.

This last conclusion (*g*) embodies the central truth brought out by the inquiry. For those who are inclined to withhold their assent from it, only one loophole, so far as I can see, remains open—and that is a doubt as to the good faith of the statistician. To meet this to some extent, the original documents which constitute the data of the inquiry have been preserved and filed at the Brisbane Hospital, where they may be examined by any member of the profession who is sufficiently interested in the subject. They include—(1) Most of the charts of the cases in the expectant period. (2) All the charts (with three or four exceptions) in the bath period, with a brief account of the main features in each case, the number and duration of the baths, and their effect on temperature and pulse, and other special therapeutic measures. (3) *Post-mortem* record, consisting of notes made at the autopsy on 117 of the fatal cases; eighty-seven are from the bath period; no examination being made in the other five. Thirty are from the expectant period. Although *post-mortem* examinations were only omitted in about seven of the eighty-five fatal cases that occurred in this period, unfortunately the record of the earlier ones was not preserved.—F. E. Hare, *The Practitioner*.

HEPATIC SURGERY.—At the Medical Society of London, in the absence of Mr. Knowsley Thornton through illness his paper on "Observations on Some Additional Cases Illustrating Hepatic Surgery" was read by Mr. Marmaduke Shield. After recalling his two previous papers on the same subject read before this society in 1887 and 1888, the author stated that the present series completed the whole of his practice in this branch of surgery to the end of January, 1891. He gave full notes of nine cases in which he had diagnosed gall-stones, had found and removed them in seven, with complete cure; had failed to find a stone which was present in one, the patient dying, and the stone being found after death in the peritoneum; and in the remaining case found hydatids to be the cause of obstruction instead of gall-stones, the patient making a smooth recovery. He then referred

more briefly to seven other cases in which he had operated and found pathological conditions having a more or less important bearing upon hepatic surgery. One of these was a large hydatid cyst of the liver, which had been diagnosed by several physicians as disease of a much more serious character. The patient recovered. Two were cases of malignant disease, one a case of doubtful nature, and one of chronic pain, and adhesion after the passage of large gall-stones. In none of these did he consider before operation that the indications pointed to the presence of gall-stones. In one other case he operated, expecting to find gall-stones, but found nothing definite to account for the attacks of pain, and though temporary relief followed the exploration, there had been recently fresh attacks of pain. The last case was one of very large tropical abscess of the liver in a gentleman aged sixty-three, in which unusually rapid recovery followed free incision and drainage. Commenting on the whole series, he claimed the results as good, and amply justifying the operative procedures. At the same time there was sufficient uncertainty and failure to show that it was to more perfect diagnosis that our attention must be directed. This would be greatly aided by more frequent exploration in doubtful cases. He dwelt upon the important points in the diagnosis of gall-stones while still in the bladder, in the cystic duct, and in the common duct, and emphasized from two of the cases recorded the danger of attempting to force the stones through by massage; and also pointed out that adhesion of the gall-bladder to the right kidney was a potent source of error in diagnosis, both from the position of the swelling and the sympathetic renal symptoms induced. He claimed three entirely new departures in this branch of surgery:

1. Direct incision of the common duct, and removal of the stone, with complete suture of the opening without opening the gall-bladder.

2. Incision into the common duct, needling the stone into fragments, and closing the duct over the fragments, leaving them to find their own way into the duodenum.

3. Leaving the gall-bladder open in the peritoneum with efficient provision for drainage through the abdominal incision in cases in which it is impossible to suture it into the abdominal wound, and not advisable to attempt complete intra-peritoneal suture. In the latter cases, and in all cases where fouling of the peritoneum was possible, he strongly advised a counter opening above the pubes, and additional drainage by means of a glass tube in the pouch of Douglas.

Sir Joseph Fayrer congratulated the author on including the unfavorable as well as the favorable data with regard to his cases. He himself had seen practically nothing of the surgery of the gall-bladder, but he had had a very large experience of hepatic abscess. He quoted two cases of calculus of the gall-bladder in which nature had relieved herself; one patient came to him with a history of long trouble in the hepatic region and a sinus at the umbilicus. He recovered completely without operation, passing twelve gall-stones by the way of the umbilical opening. Another case was that of a lady, the wife of a medical man, who was very ill and suffering from severe hepatic colic and jaundice. On deep palpation an enlarged gall bladder was felt, the outline of the stones being distinctly perceptible. He advised awaiting a day or two before operation, and during this time all the gall-stones were passed by the bowel, the manipulation for the purpose of diagnosis having probably dislodged them.—*The Lancet*.

ECLECTIC PRACTICE.—We have repeatedly referred to this school, and endeavored to obtain from them a tangible statement of the principles upon which they base their existence as a separate school in medicine. Finding it impossible to procure such a statement of principles, it is fair to conclude that they have none. It is then a matter of interest to know wherein their practice differs from our own; and, to illustrate this, we append a few extracts from one of their leading journals. Our readers can then judge whether the remedies employed are true, and not imaginary, and whether they do not come legitimately within the field of regular medicine:

INFANTILE DYSPEPSIA.—The treatment will vary very greatly, and will be successful as our diagnosis has been accurate. We especially want to fit the remedy to the case, and it will not do to say *some* bitter tonic, *some* peptic or restorative; it is "the indicated remedy" which will give success.

Nux.—If pain is a prominent symptom (colic), many physicians would at once select nux as the remedy, and sometimes the effect is wonderful. 1, 2, or 3 drops in a half glass of water, in small doses frequently repeated, relieves the pain, and then at longer intervals, with care as to the food, may give a complete cure.

Colocynth.—When the pain is certainly in the lower abdomen, with desire to stool and tenesmus, the discharges being small or mucoid, the minute dose of colocynth sometimes gives great relief.

Phosphate of Soda.—When there is constipation, I have thought that this salt is especially beneficial. I prefer to give it so that it will not be regarded as a medicine; and if the child is old enough, a salt-cellar filled with it, and placed at the child's plate at meal times, may give sufficient for the laxative influence.

Arsenic.—With a feeble and relaxed skin I have given arsenic with advantage. I add of Fowler's solution 2 drops to water 4 ounces, and give a teaspoonful every three or four hours.

Lycopodium.—I have had excellent results from the use of lycopodium, following the homœopathic symptomatology—"worse in the afternoon from 2 to 4, high-colored, red urine." Recently a severe case, with frequent small discharges, painful, with tenesmus and prolapsus ani, was cured with this remedy after other means had failed.

Agrimonia.—Another case with poor appetite, bad digestion, and paroxysmal pain associated with urination, is cured with agrimonia.

Iron.—In the olden time I used the tincture of muriate of iron a good deal in infantile dyspepsia and poor nutrition. There is evident leucocythæmia, as shown by the white, transparent skin, and the want of color in the lips and nails. The dose was not large, $\frac{z}{ij}$ to simple syrup $\frac{z}{ij}$; one-fourth of a teaspoonful three or four times a day.

Compound Tonic Mixture.—Whilst not used so frequently as in the dyspepsia of the adult, the triple phosphate of quinine, strychnine, and iron is sometimes a very good remedy. It is especially useful when the appetite has failed, so that the child cannot take a necessary quantity of food. The dose is small—from 1 to 10 drops in a little water. Though bitter, it is better taken by children than one would suppose.

Uvedalia.—With enlarged liver or spleen, or hard, nodulated abdomen, I have used the uvedalia ointment with massage, and with most excellent results. Sometimes it is used as hot as it can be borne, but always with much friction.

Quinine Inunction.—One of the best means in many of these cases is the use of quinine by inunction. Sometimes the entire surface is rubbed, at others but the abdomen, once or twice daily. In localities where remittent or intermittent diseases prevail, this should always be thought of.

Foods.—If the child be nursing, the diet of the mother should always be looked after. It is possible that with a change in her food an improvement will take place. If the child is taking cow's milk, this should be good. If the milk is bluish, has a greenish tinge, shows flocculence by standing, has any peculiarity of taste or smell, it should be rejected. Milk from another cow, or cream properly diluted, may effect the necessary change. If not, we may have recourse to goat's milk, condensed milk, or some of the foods like Carnrick's and others, that are advertised in the journals. It will surprise one who has not had experience, to see what a change is sometimes effected by change of food, when medicine has not succeeded.

—Editorial, *Eclectic Med. Jour.*

ARISTOL. PEROXIDE OF HYDROGEN, PYOKTANIN.—Nothing that I have ever tried begins to compare with a fifteen per cent. ointment of aristol for bed-sores. The aristol should be thoroughly incorporated with the proper proportion of vaseline. "It acts like a charm." The same preparation is an excellent remedy in the treatment of old, irritable ulcers of the leg. The ointment should be spread on thin layers of antiseptic cotton and applied after thoroughly cleansing the sores with peroxide of hydrogen. The cotton should be prepared in such manner as to make a smooth surface, over which should be placed a roller bandage, perfectly smooth and of just sufficient tightness to be comfortable.

I have used pyoktanin in one very severe case. There was an ulcer just below the left patella, three inches in diameter, another below this six inches in length, very deep, from which were removed several pieces of bone. Besides these there were numbers of smaller ulcers, varying in size from a silver twenty-five cent piece to that of a silver dollar, deep and ragged—the whole discharging a large quantity of offensive pus. The limb was swollen and painful.

The ulcers were thoroughly cleansed with a 75 per cent. solution of peroxide of hydrogen, and then dried, after which they were well dusted with pyoktanin, and covered with antiseptic cotton, over which was placed a loose roller. The pain soon subsided, and in a few days the discharge had nearly ceased, while the offensive odor was entirely absent. Dressings were changed every twenty-four hours. This treatment was continued for some three weeks, at which time the larger ulcers had begun to heal. The aniline was then left off, and the aristol ointment substituted as recommended above, a roller bandage being applied from the toes to the knee. At this writing the ulcers are nearly healed.—Squire, *Eclectic Med. Jour.*

SPECIFIC MEDICATION.—*Tincture of guaiac* is a specific for tonsillitis, when we have great swelling with humidity and deep redness of tonsillar mucous membrane. Scores of physicians testify to its specific efficiency in such cases; the dose is only a fraction of a drop, and still one dose of the medicine will give relief. Many of our patients who are subject to attacks of tonsillitis with every slight cold carry a bottle of the medicine with them constantly, and upon the first appearance of that characteristic stiffness and pricking sensation in the throat, immediately stop its progress by a dose or two.

Penthorum sedoides is the remedy for spring colds with a stuffing up of the nostrils and cold in the head, with profuse nasal secretion; in other words, coryza, with fullness of mucous membranes, abundant secretion, spongy gums, and the conditions so commonly called catarrh among the laity. Internally it should be given in doses of 10 drops to 4 ounces of water, teaspoonful every two hours, and also used as a spray diluted with water.

Calendula has been attracting some attention lately, and perhaps some new indications for its use may appear. *Calendula* is the remedy for varicose veins, especially of the lower extremities. When we have varicose ulcers on the leg we must first heal the sore; and by bathing the limb with *calendula*, also giving it internally, the rubber bandage will complete the cure.

Another chronic condition which is speedily and surely dissipated by straight medication is enlargement of the thyroid gland. We speak what we do know when we say give iris—but not the common every-day preparations which are usually kept in the drug stores. Tincture or fluid extract made from the dried root has about the same virtue as a tincture of wooden toothpicks. The specific tincture is what we must use. When we have enlarged thyroid with anæmic and atonic conditions, especially in young girls just entering maturity, give iris, 10 drops to 4 ounces of water, teaspoonful four times a day.

Another chronic disease which has responded very satisfactorily to specific treatment is vaginal leucorrhœa in young girls otherwise robust. In such cases vaginal examinations are not to be made. Injections are also very mortifying to the delicate shrinking nature of the highly sensitive organization of the patient. You will be perhaps surprised and gratified beyond measure with the promptness with which helonias will relieve the symptom. Helonias acts by increasing the tone of the relaxed and secreting vaginal mucous membrane.

There is one condition which will be removed by small doses of ignatia, which is a great comfort in some ways; and that is feminine sexual frigidity. Do not let your sense of the ridiculous entirely overcome you, but just give the remedy a trial in cases where there are no morbid variations, and nothing in the way but feminine sexual frigidity.

—Watkins, *Elect. Med. Jour.*

FRENCH NOTES.

A. E. ROUSSEL, M.D.

THE various treatments of tinea tonsurans employed at the St. Louis Hospital:

- I. *Treatment of Bazin*.—1. Epilation of the patches.
2. Lotions of sublimate, 4 to 1,000.
3. The use of a parasiticide pomade of acetate of copper, of sulphur, or of turpeth mineral.

II. *Treatment of M. Vidal*.—This treatment forms the basis of the medications the most used at the St. Louis Hospital since 1888, when Vidal and Marfan demonstrated that the trichophyton is a parasite found in the atmosphere, and that the principle of occlusion is one of the best means of destroying this growth.

1. Frictions with the essence of turpentine and applications of tincture of iodine on the diseased surfaces.

2. The application over the head of vaseline and iodine (4 to 100), then a bonnet of caoutchouc, or a leaf of gutta-percha.

III. *Treatment of Ernest Besnier*.—1. Keep the hair shaved during the duration of the treatment;

epilation of a zone of 6 to 8 millimeters around the patches; remove, by means of a curette, all the broken hairs and diseased products accumulated around the patches.

2. Daily washing with tar soap, with salicylic acid or with sulphur.

3. Cover all the patches with emplastrum vigo.

IV. *Treatment of M. Hallopeau*.—1. Wash the scalp each morning with black soap; then, after having wiped dry, rub with the following solution:

R.—Camphorated alcohol..... 4½ ounces.
Essence of turpentine..... 6 drachms.
Ammonia liquid..... 1 “

2. Twelve hours later apply vaseline with iodine, 1 to 100.

3. Cover the head with caoutchouc for an entire day; apply the vaseline and iodine at night.

4. Shave the hair each week.

V. *Treatment of Unna* (of Hamburg).—1. Apply over the entire scalp the following pomade:

R.—Salicylic acid..... 30 grains.
Chrysarobine..... 75 “
Ichthyol..... 75 “
Simple ointment..... 3 ounces.

2. Cover the head with an impermeable bonnet, which should be partially removed during four days for a new coating of pomade.

3. At the end of four days remove the chrysarobine pomade, and for three days friction with a pomade of ichthyol (5 per cent.)

4. Recommence the following week a new period of seven days, and continue in the same manner until a cure results, which will take one month.

VI. *Treatment of M. Quinquand*.—1. Cut the hair very short with scissors, soap the head each morning with warm water, then rub with the following lotion:

R.—Biniodide of mercury..... 2½ grains.
Bichloride of mercury..... 15 “

rub in mortar and dissolve with

R.—Alcohol at 90°..... 10 drachms.
Distilled water..... 8 ounces.

2. If necessary the use of a curette; then, after using the lotion, the following may be applied:

R.—Biniodide of mercury..... 2½ grains.
Bichloride “..... 15 “
Emplastrum..... 8 ounces.

3. At the end of forty-eight hours, remove the plaster; soap the head; rub with the above lotion; renew the plaster, and thus continue until a cure is effected.

M. Quinquand has successfully employed the following pomade instead of the plaster:

R.—Vaseline..... 3 ounces.
Chrysophanic acid..... 30 grains.
Salicylic acid..... 30 “
Boric acid..... 30 “

—*La Tribune Médicale*.

ON THE INFLUENCE OF INTESTINAL ANTISEPSIS ON THE TOLERANCE OF CERTAIN MEDICAMENTS.—At a previous meeting of the Société de Biologie, M. Féré spoke of the good results obtained from intestinal antiseptics in patients suffering from brominism who notice the disappearance of all troubles due to the accumulation of bromide of potassium, and, in particular, the cutaneous manifestations. This antiseptics has since been continued without interruption, and, notwithstanding that the patients have daily

taken 60 grains of naphthol and 30 grains of salicylate of bismuth for nearly two months, they have experienced no untoward effects. The tolerance is, therefore, very great. It seems that we may consider as definite the advantages which it confers relative to the administration of bromide of potassium, which, in several cases, has been administered in doses of 225, 240, and even 255 grains a day, not only without inconvenience, as far as their general health was concerned, but with great advantage as regards their convulsions. M. Féré reports the equally good action of the intestinal antiseptics in patients who were placed under the borax treatment; this last medication, which occasions certain cutaneous affections, may thus be administered without any bad results.

—*La Tribune Médicale.*

THE MALARIAL ELEMENT IN OÖPHORALGIA.—Mrs. M., aged twenty years, was first seen by me four years ago, soon after she had had an abortion at six weeks. She was suffering with severe pain in the right ovarian region, unaccompanied by evidences of acute inflammatory trouble. Examination showed well-marked antelexion, with prolapse of the right ovary, the gland being neither much enlarged nor especially tender. Her husband, himself a physician, treated her locally, and she was soon up and about. She had had moderate dysmenorrhœa before marriage, which continued afterward, but was relieved by dilating the os internum just before the flow. Two years later she became pregnant again, and I delivered her by high forceps without local injury, except a slight laceration of the cervix. Her convalescence was normal. The prolapsed ovary gave her some trouble during her pregnancy, but was not tender when I examined her three weeks after labor, and introduced a pessary in order to correct a tendency to retro-displacement and prolapsus. I treated her several times for the ovarian tenderness, but after a few months the pessary was removed, and she menstruated without pain, provided that the os internum was dilated, as before, previous to the flow, for the antelexion persisted. Eight weeks ago I was called to see her. She had been in excellent health for several months, menstruating regularly and without pain. Her monthly flow had begun the day before, and was followed by severe lancinating pains in the right ovarian region, which radiated down the back of the thigh and across to the opposite groin. The patient is more than usually courageous, and certainly did not exaggerate her symptoms. She possessed a marked tolerance for analgesics, and was given large doses of morphine, antipyrine, and antifebrine, with only temporary relief. On palpating the abdomen I found extreme tenderness over the right ovary, while by the vaginal touch the organ could be felt distinctly enlarged and very sensitive. No rise of temperature or acceleration of the pulse. Diagnosis: Congestion of the ovary, the cause being unknown.

I advised hot applications over lower portion of abdomen, hot vaginal douches, and phenacetine, ten grains, to be repeated in an hour. No relief was obtained, and it was necessary to given Majendie η xx during the night, to render the pain bearable. Next day the mild galvanic current was employed, one sponge being placed over the sacrum, the other over the right ovarian region; it increased the pain, and was discontinued. As menstruation had ceased, glycerine tampons were used with the idea of supporting the enlarged ovary. They afforded only temporary relief. The patient at this stage became

very much discouraged, and began to wonder if oöphorectomy would not be necessary.

After three or four days of ineffectual treatment, I noticed that the pain seemed to be most severe in the afternoon, that it reached its acme during the night, and gradually subsided during the morning hours. Careful inquiry developed the fact that the patient had had a well-marked attack of intermittent fever of the quotidian type a few months before, which yielded to twenty-grain doses of quinine in two or three days. The chill occurred in the afternoon. There had been no history of malarial neuralgia since then, but, noting the apparent periodicity and neuralgic character of the ovarian pain, I determined to test the value of quinine. On the following day twenty grains were given in the forenoon; the pain was much less severe, so that the patient was able to sleep without an anodyne. A repetition of the dose on the next day resulted in a complete disappearance of the usual sharp, lancinating pain, only a soreness remaining at its former site. On the third day the dose of quinine was reduced to fifteen grains, and on the following day to ten, which was given daily for a week. *The pain did not reappear.* The patient came to my office at the end of ten days, and reported herself as feeling well, and able to walk half a mile without pain or weariness. Local treatment (tampons and galvanism, with hot douches) was employed for a few days and was then discontinued. The next menstrual period was unattended by pain in the ovarian region. At the time of writing the patient is feeling as well as ever.—H. C. Coe, *Am. Jour. Med. Sci.*

NEW TABLE OF ATOMIC WEIGHTS.—The following table represents the latest results with oxygen—16 as a starting point of the system.

The names of elements occurring in pharmacopœial, medicinal, chemicals, are printed in heavy-faced type.

NAME.	SYMBOL.	AUTOMIC WEIGHT.	
Aluminum.....Al		27.	Mercury.....Hg 200.
Antimony.....Sb 120.			Molybdenum.....Mo 96.
Arsenic.....As 75.			Nickel.....Ni 58.7
Barium.....Ba 137.			Nitrogen.....N 14.03
Bismuth.....Bi 208.9			Osmium.....Os 191.7
Boron.....B 11.			Oxygen.....O 16.
Bromine.....Br 79.95			Palladium.....Pd 106.6
Cadmium.....Cd 112.			Phosphor's P 31.
Cæsium.....Cs 132.9			Platinum.....Pt 195.
Calcium.....Ca 40.			Potassium.....K 39.11
Carbon.....C 12.			Rhodium.....Rh 103.5
Cerium.....Ce 140.2			Rubidium.....Rb 85.5
Chlorine.....Cl 35.45			Ruthenium.....Ru 101.6
Chromium.....Cr 52.1			Samarium.....Sm 150.
Cobalt.....Co 59.			Scandium.....Sc 44.
Columbium.....Cb 94.			Selenium.....Se 79.
Copper.....Cu 63.4			Silicon.....Si 128.4
Didymium.....Di 142.3			Silver.....Ag 107.92
Erbium.....Er 166.3			Sodium.....Na 23.05
Fluorine.....F 19.			Strontium.....Sr 87.6
Gallium.....Ga 69.			Sulphur.....S 32.06
Germanium.....Ge 72.3			Tantalum.....Ta 182.6
Glucium.....Gl 9.			Tellurium.....Te 125.
Gold.....Au 197.3			Terbium.....Tb 159.5
Hydrogen.....H 1.007			Thallium.....Tl 204.18
Indium.....In 113.7			Thorium.....Th 232.6
Iodine.....I 126.85			Tin.....Sn 119.
Iridium.....Ir 193.1			Titanium.....Ti 48.
Iron.....Fe 56.			Tungsten.....W 184.
Lanthanum.....La 138.2			Uranium.....U 239.6
Lead.....Pb 206.95			Vanadium.....V 51.4
Lithium.....Li 7.02			Ytterbium.....Yb 173.
Magnesium.....Mg 24.3			Yttrium.....Yt 89.1
Manganese.....Mn 55.			Zinc.....Zn 65.3
			Zirconium.....Zr 90.6

—*Pacific Drug Review.*

AN article contributed to THE TIMES AND REGISTER, of Philadelphia, by Samuel G. Dixon, M.D., upon Care in the Use of Tubercle Bacillus as a Remedy in Tuberculosis, has been published in pamphlet form. Prof. Dixon is a recognized authority in treating this disease, and the pamphlet will find a permanent place within the office of every physician who can obtain a copy of it.—*Daily News.*

Medical News and Miscellany.

SCARLET FEVER prevails in Pratt county, Ill.

DR. FOX, of Milwaukee, is down with the grippe.

DR. FOTHERGILL termed the poor "bridges to the pockets of the rich."

SIR J. Y. SIMPSON said the "hearts of the poor are the roads to the pockets of the rich."

THE poor are the young doctor's rubber ring on which he cuts his first medical teeth.

DR. RICHARD C. NORRIS succeeds Louis Starr as editor of the Pediatric department of the *Annals of Gynecology*.

A MYSTERIOUS epidemic exists at Dayton, Wis. The symptoms resemble scarlatina, but soon change to those of meningitis.

DURING 1890 the Presbyterian Eye, Ear, and Throat Hospital, of Baltimore, treated 9,095 patients. The daily clinic averaged 115 cases.

Two deaths from trichinosis occurred last week in Milwaukee. Both deaths were certified to as due to typhoid fever before the true cause had been discovered.

THE Illinois Veterinarians met in Annual Council at Champaign, Ill., on March 25. It is not stated that all the veterinarians were in champagne, but many undoubtedly were.

THERE can be no doubt that the influenza really prevails in many parts of the country. In Chicago the deaths number over 1100 weekly, or 400 more than at any time last winter.

DURING the last thirteen years Japan has had 456,080 cases of cholera, the average mortality being 66.54 per cent. It is noted that the years of greatest prevalence were also those of greatest proportional mortality.

THE Sixteenth Annual Meeting of the American Academy of Medicine will be held at Washington, D. C., May 2 and 4, opening at 3 P. M. May 2.

As it will be just previous to the sessions of the American Medical Association, members will be able to attend both meetings.

DISEASED MEAT CONFISCATED.—Matt Lamb, the health officer in the stock-yards district, condemned and reports destroyed yesterday 9,620 pounds of diseased hogs, lumpy-jawed beef, and emaciated calves, and 860 pounds of bad meats. It was the biggest day's work in a long time.

—Chicago Daily News.

PERSONS who are in doubt as to the correct method of tipping the nurse may find the following of interest. The item in a late issue showing that more trained nurses marry than any other class of women workers, shows that she won't object to taking the man as well as his title papers:

Wanted: Deeds.
Not words of winning note;
Not thoughts from life remote;
Not fond religious airs;
Not sweetly languid prayers;
Not love of scent and creeds.

Wanted: Deeds.

—Trained Nurse.

M. VIGNÉ, a French physician, who varies the monotony, and adds to the emoluments, of professional pursuits by writing romances, has got himself into a very sad predicament. It seems that in one of his books he has described as the leading lady a young girl who contracted matrimonial obligations while ignorant that she was physically disqualified from fulfilling them. Thereupon, one of the doctor's patients comes forward and enters suit against him for breach of professional confidence, claiming to have recognized his wife's case in the doctor's story. Whether he will succeed in establishing the lady's identity with *L'eternelle blessee*, he has at least eternally damned the poor doctor's reputation for imaginative fecundity, by revealing the true source of his conception.

WHAT MAKES MAN HAPPY.—

CARNOT.

1. Health.
2. An independent condition.
3. A taste for work.
4. The esteem of people of worth.
5. Love of society.
6. Talent.
7. A knowledge of business.
8. Moderation.
9. A tendency to aid the unfortunate.
10. Companionship of an amiable woman.

TOlstoi.

1. Natural life in the air, with intimate connection with earth, its plants and animals.
2. Physical labor, bringing good appetite and sleep.
3. Simple, affectionate family life.
4. Free and familiar intercourse with your fellow-men.
5. Health, and a natural, painless death.

—Med. Current.

WEEKLY Report of Interments in Philadelphia, from March 21 to March 28, 1891:

CAUSES OF DEATH.		CAUSES OF DEATH.	
Adults.	Minors.	Adults.	Minors.
Alcoholism.....	2	Inanition.....	7
Apoplexy.....	14	Influenza.....	4
Asphyxia.....	1	Inflammation bladder.....	2
Asthma.....	1	" brain.....	2 10
Bright's disease.....	8	" bronchi.....	5 9
Burns and scalds.....	3	" kidneys.....	4
Cancer.....	12	" larynx.....	1
Casualties.....	7	" liver.....	1 1
Congestion of the brain.....	2	" lungs.....	38 18
" lungs.....	5	" pericardium.....	1
Cholera infantum.....	4	" peritoneum.....	7 1
Cirrhosis of the liver.....	2	" pleura.....	1
Collapse of the lungs.....	2	" s. & bowels.....	6 8
Consumption of the lungs.....	38	Intussusception.....	2
Convulsions.....	4	Locomotor ataxia.....	1
Croup.....	20	Lymphadenoma.....	1
Cyanosis.....	4	Marasmus.....	1 17
Dyspepsia.....	1	Measles.....	1
Debility.....	2	Malignant Pustule.....	1
Diabetes.....	1	Neuralgia of the heart.....	1
Diarrhœa.....	2	Obstruction of the bowels.....	1 1
Diphtheria.....	3	Old age.....	16
Disease of the heart.....	30	Paralysis.....	10
" kidneys.....	1	Rheumatism.....	2
" liver.....	1	Shock, surgical.....	2
Dropsy.....	1	Sclerosis of the brain.....	2
Dysentery.....	3	Septicæmia.....	3
Effusion of the brain.....	2	Softening of the brain.....	1
Epilepsy.....	1	Suffocation.....	1
Embolism, cardiac.....	1	Teething.....	1 1
Fatty degeneration of the heart.....	1	Tumor.....	4 1
Fever, malarial.....	1	Ulceration of the stomach.....	3
" puerperal.....	3	Uræmia.....	5
" remittent.....	1	Whooping cough.....	4
" scarlet.....	5	Total.....	309 195
" typhoid.....	28		

THE grippe has appeared in Philadelphia, but as yet in a much lighter form than elsewhere. Still, there is a notable increase in the weekly mortality; and pneumonia is again becoming prevalent. Dr. Flick believes that he prevented this complication of grippe by the free use of ammonia.

A CONFERENCE is to be held between a few medical gentlemen to consider the propriety of establishing a medical college in connection with Trinity. We adhere to the opinion expressed at the meeting of the Medical Society in Tarborough, that we are not ready in North Carolina for a medical school until we have endowments sufficient to pay salaries to the professors, but perhaps the time has now come. We hope to give all the particulars to our readers.

—N. C. Med. Jour.

THE grippe is waning in Chicago; but before doing so it lifted the death-rate to 1100 week before last. It is said to have shown more discrimination than usual in the selection of its victims. Laboring men were passed by, while the flabby-muscled denizens of overheated stores were taken. Those enemies of mankind in general—the street-car employés—suffered satisfactorily, while the wishes of the rising generation were respected by the prostration of so many school-teachers that the supply of substitutes ran out, and many classes were suspended.

AN INCREASED DEATH RATE.—Grippe, pneumonia, and the vernal equinox jointly did deadly work in Chicago last week. There were so many deaths that the registrar of vital statistics could not get the mortuary list filled out at the regular hour Saturday. The footings show that 804 persons died during the week. Pneumonia killed 170; grippe, 19; bronchitis, 81; diphtheria, 23; scarlet fever, 15; typhoid fever, 18; consumption, 46. The death rate per thousand was 34.84, almost unprecedented in the history of the city. Dr. Wickersham predicts that the rate this week will fall off 40 per cent. unless some climatic phenomenon supervenes.

—Chicago News.

LIFE ASSURANCE AND THE "SECRET PROFESSIONNEL."—*Autre pays, autres mœurs!* In France the medical man cannot be compelled to divulge, even in a court of law, the nature of the disease for which he has treated a patient. Should he do so without the consent of his patient (or his representatives after death) he incurs the risk of being prosecuted for damages. The following legal pronouncement will give your readers some idea of the protection extended to French practitioners in this respect. Our French *confrère* is a real father-confessor. On February 4 the Paris Court of Appeal confirmed a verdict pronounced by the Tribunal of Commerce against an assurance company which had refused to pay the insurance money due to the widow of a policy-holder on the ground of the non-production of a medical certificate stating the nature and duration of the malady to which the deceased had succumbed. The widow could not produce the document in question, for the simple reason that the medical attendant had, for reasons best known to himself, declined to indite it. The Tribunal of Commerce ruled that the doctor, bound by the rules of professional secrecy, is not compelled to furnish a death certificate, it being left to his sole judgment to decide if information revealed to him by his patient comes within the limits of *le secret professionnel*.

—Lancet.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

ARMY, NAVY AND MARINE HOSPITAL SERVICE.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from March 24, to March 30, 1891.

Leave of absence for seven days granted Captain J. Van R. Hoff, Assistant-Surgeon, in orders No. 61, E. S., Fort Riley, Kansas, is extended twenty-three days. Par. 3, S. O. 36, Department of the Missouri, March 27, 1891.

By direction of the acting Secretary of War, Lieutenant-Colonel Charles R. Greenleaf, Assistant Medical Purveyor, will proceed to New York City, on public business, and thence to Boston, Massachusetts, to represent the Army Medical Department at the American Association for Physical Education; and upon the completion of the duties contemplated will return to his station in this city. Par. 3, S. O. 67, A. G. O., Washington, D. C., March 25, 1891.

By direction of the acting Secretary of War, the leave of absence granted Captain Robert J. Gibson, Assistant-Surgeon, in special orders No. 232, A. G. O., October 3, 1890, from this office, is extended one month. Par. 10, S. O. 65, A. G. O., Washington, D. C., March 23, 1891.

By direction of the acting Secretary of War, Major John H. Bartholf, Surgeon, now on duty at Plattsburgh Barracks, New York, will proceed to Fort Wayne, Michigan, and report in person to the commanding officer of that post for temporary duty. Par. 7, S. O. 64, A. G. O., Washington, D. C., March 21, 1891.

Leave of absence for one month, on surgeon's certificate of disability, is hereby granted to Major Henry R. Tilton, Surgeon, U. S. Army. S. O. 56, par. 5, Headquarters Division of the Atlantic, March 21, 1891.

RETIREMENT.

By direction of the acting Secretary of War, the retirement from active service this date, by operation of law, of Captain Henry Johnson, Medical Storekeeper, under the provisions of the act of Congress approved June 30, 1882, is announced. Par. 5, S. O. 66, Headquarters of the Army, A. G. O., Washington, March 24, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending March 28, 1891.

WHITE, STEPHEN S., Passed Assistant-Surgeon. Ordered to the U. S. S. "Baltimore."

MARTIN, WM., Surgeon. Ordered to Naval Rendezvous, San Francisco, Cal.

HARRIS, H. N. T., Assistant-Surgeon. Ordered to the U. S. Receiving Ship "St. Louis."

PICKERELL, GEORGE MCC., Passed Assistant-Surgeon. Ordered to the Naval Hospital, New York.

RUSH, C. W., Passed Assistant-Surgeon. Ordered for duty with the Inter-Continental Railway Commission.

OGDEN, F. N., Passed Assistant-Surgeon. Ordered for duty with the Inter-Continental Railway Commission.

NORTH, JR., JAS. H., Assistant-Surgeon. Ordered to the Navy Yard, New York.

PROMOTIONS.

AMES, HOWARD E., Passed Assistant-Surgeon. Promoted to Surgeon, March 19, 1891.

PICKERELL, GEO. MCC., Assistant-Surgeon. Promoted to Passed Assistant-Surgeon, March 25, 1891.

APPOINTMENT.

WHITE, C. H., Medical Inspector. Appointed Fleet Surgeon, Pacific Station.

The Times and Register.

Vol. XXII, No. 15. NEW YORK AND PHILADELPHIA, APRIL 11, 1891. Whole No. 657.

	PAGE		PAGE		PAGE
CLINICAL LECTURE.			Hemorrhage from Uterine Fibroids. <i>Parvin</i> - - - - - 305		
BRONCHIAL ASTHMA. By J. M. Anders, M.D. - - - - - 295			EDITORIALS.		
ORIGINAL ARTICLES.			MALARIAL HEMATURIA - - - - - 306		
THE HYGIENE OF EVERY-DAY LIFE. By Daniel Strock, M.D. - - - - - 297			ANNOTATIONS.		
A GLORIOUS SUNSET. By S. V. Clevenger, M.D. - - - - - 299			To Effect a Permanent Organization of Licensing Boards - - - - - 306		
INTERNAL URETHROTOMY: WITH CASES. By J. V. Prewitt, M.D., West Point, Ky. - 300			A Curious Case - - - - - 306		
SOCIETY NOTES.			Elaborate Clinical Chart - - - - - 306		
GYNCOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE - - - - - 301			Proper Mode of Breathing - - - - - 307		
Occlusion of the Os Uteri During Four Days' Parturition. <i>Neale</i> - - - - - 301			The Use of Baths - - - - - 307		
The Induction of Premature Labor in Contracted Pelves. <i>Williams</i> - - - - - 302			Some Atypical Phenomena in Typhoid Fever - - - - - 307		
THE POLYCLINIC.			BOOK NOTICES.		
JEFFERSON MEDICAL COLLEGE HOSPITAL:			A Dermatological Bibliography. <i>Jackson</i> - 307		
Incontinence of Urine. <i>Rex</i> - - - - - 304			Some Remarks on the Uses of Phosphorus and Its Compounds in the Human Economy - - - - - 307		
Hydrocele. <i>Keen</i> - - - - - 304			Report of the Board of Health of the City of Reading, Pa. - - - - - 307		
Neuralgic Pains - - - - - 304			Institutul de Chirurgie, Anul 1890-91 - - 307		
Simple Goitre - - - - - 304			The Year-book of Treatment for 1891 - - 307		
Cancer of the Pylorus - - - - - 304			Manual of the Domestic Hygiene of the Child. <i>Uffelmann</i> - - - - - 308		
Pneumonia - - - - - 304			THE MEDICAL DIGEST.		
Cystitis. <i>Brinton</i> - - - - - 304			Comparison of the Ocular Troubles in Locomotor Ataxia, Multiple Sclerosis, and		
Filiform Bougies. <i>Brinton</i> - - - - - 305					
For Atonic Dyspepsia. <i>Brubaker</i> - - - 305					
			Hysteria. <i>Charcot</i> - - - - - 305		
			Alcohol in Albuminuria. <i>Guvich</i> - - - 305		
			Nightmare. <i>Bamford</i> - - - - - 308		
			Gleet. <i>Saadek</i> - - - - - 308		
			Spontaneous Combustion. <i>Reynolds</i> - - 308		
			Cerebral Syphilis. <i>Perching</i> - - - - - 308		
			A Method of Administering Iron in Large Quantities. <i>Taylor</i> - - - - - 308		
			Salol as an Antiseptic in Cancer of the Uterus. <i>Marly</i> - - - - - 309		
			Acute Transitory Oedema of Lung During the Pneumonic Crisis. <i>Kahane</i> - - - 309		
			Ustilago Maidis. <i>Hubbard</i> - - - - - 309		
			Death from Suffocation while Recovering from Etherization. <i>Tate</i> - - - - - 309		
			Dressings Used in Billroth's Clinique. <i>Med. Press</i> - - - - - 310		
			Camphoric Acid in Night-sweats. <i>Hare</i> - 310		
			The Shurly-Gibbes Treatment of Pulmonary Tuberculosis. <i>Brown</i> - - - - - 310		
			Septicæmia Due to Sewer Gas. <i>Moullin</i> - 311		
			The Causes of Eczema. <i>Bulky</i> - - - - - 311		
			Tuberculosis in Children. <i>Boltz</i> - - - 312		
			Phthisis in High Altitudes in England - 312		
			Mucous Polypi in Frontal Sinus. <i>Hulke</i> - 312		
			Aphorisms in Medical Emergencies. <i>Kempf</i> 312		
			MEDICAL NEWS AND MISCELLANY, 613		
			ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - 316		
			NOTES AND ITEMS - - - - - iv, xii		

Clinical Lecture.

BRONCHIAL ASTHMA.

By J. M. ANDERS, M.D.,

Professor of Clinical Medicine, Medico Chirurgical College. Physician to Episcopal and Philadelphia Hospitals.

THIS patient possesses several features of clinical interest.

Master B., age seventeen years. Since he was four years of age he has suffered from oft-repeated attacks of difficult breathing. These attacks, from their croupous character were often mistaken for attacks of pseudo membranous laryngitis when he was younger. The attacks occur nightly for periods of from seven to ten days, and are then succeeded by periods of the same length of time, during which no disturbance of breathing occur. The attacks begin at about 2 or 3 o'clock in the morning, and last, in some cases, during the greater part of the day. In other cases the invasions of suppressed breathing are over by early morning. When the patient suffers from slight colds these attacks are more frequent and severe. His father has, at times, suffered from rheumatism and from gout. The father's sister gives a history of epilepsy, or of epileptiform convulsions.

The patient wakes from sleep feeling a sense of suffocation—a shortness of breath. The attack is not preceded by a feeling of constriction of the throat nor by itching of the skin, nor eructation of gas, as we frequently find in these cases.

This case is one of bronchial asthma.

These cases of asthma are characterized by succeeding attacks of difficult breathing coming on, in nearly all cases, after midnight. The attack lasts until morning, and in some cases during the day.

The patient feels as if the windpipe was stopped up, and he, himself, hears a wheezing, blowing noise, during expiration.

As the attack of asthma terminates a large amount of mucus is expectorated.

The subjective symptoms, in this case, point most positively to the existence of asthma.

Now, asthma may exist as a distinct and separate disease; or, it may be a symptomatic affection, occurring in the course of certain diseases, such as emphysema, cardiac or renal diseases.

In this patient, the early age at which the disease began, and the history of the disease, enables us to exclude emphysema as being the primary disease.

Physical Examination.—Inspection shows but a very slight prominence of the ribs in front of chest. We observe a slight pulsation at the epigastrium—this may be due to nervousness, to displacement of the heart, or to a right ventricular hypertrophy. The dorsal region of the spine is more curved than normal and presents a slight bulging in the sub-scapular region.

Palpitation presents normal, vocal fremitus on each side of chest.

Percussion gives a normal resonance everywhere on the front of the chest.

You will notice that the percussion note over the right apex is a little less resonant, or of slightly higher note, than on the left side. This is a normal condition.

Auscultation shows the presence of a weak vesicular murmur, with very slightly prolonged expiratory movement.

On the posterior aspect of the chest, and near the bases of the lungs, we find a slightly exaggerated percussion resonance, and the same signs on auscul-

tation as in the anterior regions. These are all the physical signs now present in this patient, and they point indisputably to asthma.

During an attack the patients suffering from asthma assume such postures and use such means as will allow them to bring into action the auxilliary muscles of respiration.

During an attack of asthma, we will find, on physical examination, a slight increase of vocal femitus on palpation. This increased vocal femitus is felt only in patches or isolated areas.

On percussion we hear an increased resonance, the walls of the bronchioles are spasmodically contracted, lessening the caliber of the tubes, and the air, prevented from leaving the vesicles, distends them, giving rise to exaggerated resonance.

At the base of the lungs we may find patches of slight dullness, due to the exclusion of air from the total occlusion of the tubes leading to these areas.

On auscultation we will hear whistling, cooing or sonorous rales. All these rales are produced when the bronchial tubes are free of mucus—they are dry rales. When they are produced in the smaller tubes they are called sibilant rales; when in larger tubes, sonorous rales.

Now, as the attack of asthma is near an end there is an outpouring of mucus, and we find sub-crepitant rales produced in the smaller tubes, and mucus rales in the larger tubes.

The sub crepitant rales are heard during both inspiration and expiration.

The acute exacerbation may pass off suddenly, the air rushing to all parts of the lungs, all the physical signs of the disease being lost. In some cases, as in this patient, the attack subsides gradually.

In a certain class of cases of asthma there may be absence of acute attacks for weeks or months, and then an attack may occur without apparent cause.

Causation.—Hereditary influence is one of the chief predisposing causes—at least 50 per cent. of cases of asthma are due to hereditary influence. The disease may descend from grandparents to grandchildren, thus skipping one generation to make its appearance in the next.

When a case of asthma occurs in a family, you will usually find a certain proportion of the members of the family presenting the gouty or rheumatic diathesis; or, you may find a nervous element in the family history. Our patient has inherited a neurotic and rheumatic constitution. He thinks taking cold precipitates his attacks. Among other exciting causes of asthma you will find the inhalation of pollen, of dust, and of gases. Some patients who suffer while living in the country are free from the disease when in the city. The reverse of this rule is also true. Low temperatures will tend to precipitate the attacks. Reflex irritation often sets up an attack, as, for instance, an over-loaded stomach, and disease of the nasal chambers. Asthma is a true neurosis, however.

Prognosis is always to be guarded. If the subject be young, and the interval between the attacks be long, and the attack not very severe, the prognosis may be guardedly favorable. If the patient be of middle age, and the attacks frequent and severe, and lead to secondary affections, such as emphysema, etc., the prognosis may be unfavorable as to recovery, but favorable as to life.

Asthma is a disease beginning in childhood. More cases begin during the first ten years of life than during any subsequent period of ten years; though I

am aware that this is teaching contrary to the views of many writers.

Treatment naturally divides itself into that for the paroxysm and treatment during the interval between the attacks.

Treatment for the Attack.—If the attack be severe, we should use heroic measures in persons fairly healthy, unless the patient be old. In a young person we would give a hypodermic injection of $\frac{1}{8}$ - to $\frac{1}{4}$ -grain of morphine. If we were dealing with a case to whom morphine would be unsuited, we would use inhalations of chloroform to relieve the spasmodic condition, using but three or four whiffs of the drug at two or three intervals. The chloroform is not to be employed to produce unconsciousness, but merely to relax spasm. Do not allow the patient to use the drug when alone, but administer it yourselves.

If, on account of organic affection—more particularly of the heart—it is not considered advisable to give your patient inhalations of chloroform; use tincture of lobelia, in small doses—5 to 10 m , every half hour until the spasmodic attack breaks up. Some persons, owing to its depressing effects, may be unable to use this drug.

Asthmatics are often benefited by smoking the dried leaves of datura stramonium. Nitrate of potassium is often of service. Soak bibulous paper in a solution of nitrate of potassium, dry, and cut into strips. On the occurrence of a spasm burn the strips, inhaling the smoke. This smoke may be remedial through the formation of the protoxide of nitrogen, or presence of carbonic oxide, or the mechanical effects of the smoke.

If these means fail, give a dose of chloral; if the patient be moderately strong give 30 grains, to be repeated in two hours, if necessary; but don't exceed 60 grains during the time of one attack.

The action of bromide of potassium is, as a rule, too slow to be of service during the attack.

Alcoholic stimulants act well in these cases as in the form of hot toddy. This may often break up a spasm of asthma.

Treatment to prevent the recurring attacks is to be used in the intervals.

Treat the general conditions that may cause the attacks.

"Colds" frequently precipitate an attack, so have your patient guard against this cause. Such patients should wear woolen underclothing during the entire year. They should take moderate exercise in the open air, as a short walk every day.

Some attacks of asthma seem due to an overloaded stomach. For this reason care in diet is of importance. The patient should eat the heaviest meal at noontime, and take but a very light supper.

To control the state of passive hyperæmia frequently present during and after a spell of asthma, use, during the intervals between attacks, iodide of potassium or syrup of hydriodic acid, of which give 3j four times a day. Use these remedies persistently, as they act very gradually. With iodide of potassium we may combine Fowler's solution, for its oxidizing effect upon the blood, and because it stimulates the respiratory centers and arrests processes of degeneration. For this patient we will use:

R.—Potas. iodi. gr. v.
Liq. potas. arsen. m v.
Syr. sarsap. comp. ad 3j.

M.—S. After meals.

And we will give him tincture of lobelia, of which he will take m v every half hour for the spasmodic attacks of asthma.

During the few moments that remain at my command I will discuss the differential diagnosis.

Asthma often resembles acute or subacute bronchitis. In bronchitis there is a certain degree of shortness of breath; but it does not occur so suddenly, nor yield so soon, nor present so paroxysmal a character.

The physical signs of the two diseases are different.

In bronchitis, during the attack of difficult breathing, expectoration is present, and there is absence of the numerous dry râles met with in asthma, as a rule.

Asthma is frequently associated with emphysema, and it is sometimes difficult to tell which process is the major one.

In primary cases of asthma, when the attack is over, there is an absence of physical signs. We also base much upon the history of the case in hand.

In cases of emphysema, dyspnoea is of long continuance, and we find more or less permanent enlargement of the chest, and other physical signs are persistent. Spasmodic contraction of the diaphragm, sometimes met with in hysterical subjects, has been mistaken for asthma. In this hysterical manifestation we find short and rapid inspiratory efforts; then a pause, which may be a longer or shorter, and do not find it followed by a long, wheezing expiration.

Some laryngeal conditions may be mistaken for asthma.

In pseudo-membranous laryngitis the breathing takes on a character somewhat like asthma, but the dyspnoea is attendant upon inspiration and not expiration.

Any disease causing a stenosis or oedema of the larynx will be attended by difficult breathing; but the obstruction will be to inspiration and not to expiration, as in asthma.

Intercostal neuralgia has been mistaken for asthma.

In these cases you will be able to find a point often tender to pressure. The breathing is short and quick or "catching;" but expiration is not like that of asthma.

Original Articles.

THE HYGIENE OF EVERY-DAY LIFE.¹

BY DANIEL STROCK, M.D.,

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IN this day of preventive medicine, when as much thought and study are given to the avoidance of disease as is applied to its cure; when certain men devote the years of their lives in endeavoring to discover and control the causes that induce unhealthy action in the human body; when large sums of money are yearly contributed by benevolent individuals, or the various governments of the earth for the establishment and equipment of laboratories where such investigations may be conducted, it becomes every medical man, no matter how humble his station, to do all in his power, within the sphere of his influence, to second the efforts of these patient original investigators—to contribute his mite to the general fund of sanitary knowledge.

While the mission of the physician is to cure disease, it is also, in a larger sense, the more humane one of preventing disease when it lies in his power by precept or example so to do.

Thus it has come to pass that there has arisen a class of individuals known as sanitarians. But sanitary science is not of recent origin. Ages ago it was recognized that certain precautions were necessary to ensure freedom from disease; that certain occupations were inimicable to health, and certain localities and habits of living were inseparably connected with sickness and death. Moses, the greatest sanitarian, probably, that ever lived, understood these things, and promulgated an hygienic code that must have conduced largely to the health and happiness of his people, and could to-day be observed with profit by all classes of men.

Every day increases our knowledge of the causes of disease, and every such increase of knowledge demonstrates the importance of exercising care in our intercourse with the physically afflicted. The more information we possess of the mysterious agents that we now know are concerned in producing the phenomena in the human body which we call disease. The more we understand their subtle power to take advantage of our daily habits of life to invade the system, the more are we impressed with the conviction that it would be an act of mercy for those afflicted with certain maladies to give warning of their presence, as did the lepers of old, by crying "unclean! unclean!" As the ancients recognized the fact that contact with those affected with leprosy caused its appearance in the healthy individual, so do we know that association with those suffering with certain diseases will cause us to incur the risk of infection.

But we know more than this, whereas the people of old considered direct contact or intercourse necessary to spread certain affections, we know that disease can be disseminated without this formality. The excreta from the bowels, the sputum from the lungs or throat, the minute scales that fall from the body in some cases, are all sources of contagion, and may cause disease to appear in the healthy man months after the patient, whom he may never have seen, has recovered or died.

The clothing that has been used by a patient, the plaything that has been placed to a sick child's lips, the pipe of the smoker, the imperfectly-cleansed vessels and spoons from which the patient was nourished, the cups at the public drinking fountain, the water that flows therefrom, the milk and various articles of food we use, the railway car, the carriage, the school, the church, the public meeting-room, the theater and the opera-glasses procured therein, the towels that are indiscriminately used in the lavatories of hotels and depots; that other towel, which is frequently found pendant from the eating counter of restaurants, and is ostentatiously used by the last customer to cleanse his face, lips, and teeth; the towels and implements of the barber, the public toilet room, the public bath-house, the money that we daily handle, the hands and instruments of the untidy surgeon, obstetrician, or dentist, are all factors in the dissemination of disease, and all have direct bearing upon the hygiene of every-day life.

All of these topics—and many others—have an influence upon our health, happiness, and period of existence; but the limit of this paper will not permit of their separate discussion.

At the present time the one subject that is engaging general attention is tuberculosis—or what is known as consumption when it invades the lungs. This terrible scourge of the human race—which annually destroys about one-seventh of the population of the earth—is ever present with us, performing its fell work in the mansions of the rich as well

¹ Annual address of the President read before the Camden (N. J.) City Medical Society, January 8, 1891.

as in the humble abodes of the poor. It indiscriminately extinguishes the light of the brightest intellect and effaces the clouded mind of the idiotic or insane. The athlete who, in the pride of his power, feels that he is invincible, cannot prevail against this insidious antagonist, and, once in its embrace, will be shorn of his strength as surely as was Samson. While it has a predilection for certain races, and the members of certain families, none can feel assured that they are proof against its attacks; yet it constantly affords examples of the survival of the fittest. A scourge so persistently at war with man has, naturally, been as persistently combatted by him. All the remedies in nature's laboratory have been utilized, with the hope of staying the onward progress of this ally of death. Suggestions of all kinds have been made, mechanical contrivances without number resorted to, the patient exiled from home and friends—doomed irrevocably to die—and, notwithstanding all that has been done, the disease continues to invade our households, and we have no surety against its encroach.

The potent agent in producing and perpetuating this dreaded malady is, according to the latest investigations, a living germ, called the bacillus tuberculosis. This germ, it has been demonstrated, is present in tuberculous disease, no matter in what form it may exist—whether as an affection of the lungs, the larynx, the bones and joints, the glands, the skin, or other tissues of the body. And it has also been demonstrated that, through the bacillus agency, tuberculosis can be transmitted from one animal body to another; thus proving it to be the causative factor in the disease.

Because tuberculosis can be transmitted from one human being to another, through the agency of this living germ, we now consider it to be an infectious disease, and it may be imparted to another person through the medium of their lungs, stomach, skin, or wounds. No doubt it is contracted in the greatest number of cases through the avenues of the lungs and stomach; and the most active agents in disseminating it are the cases of tuberculosis of the lungs—the so called consumption. In these cases there is constant expectoration, and in many instances the patients are not careful where they deposit their sputa. It is ejected upon their clothing; their handkerchiefs; their beds; the floors of their dwelling; in the street car; the theater; the church, and various other places. It can be said that the sputum of the consumptive is met with everywhere.

In the course of time it dries, and is pulverized by the action of the feet, when it lies upon the floors; by the friction of the clothing or handkerchiefs with the articles with which they may come in contact; and the virus of the disease rises in the air as an impalpable powder, to be taken into the lungs with every inspiration, or it is deposited upon the food that is taken into the stomach. Thus, the lungs or stomach become the medium through which the disease is conveyed to the system.

It is transmitted by the consumptive husband in caressing his wife; by the affected mother in nursing her child; by the diseased midwife in sucking the mucus from the new-born baby's mouth. It is contracted by the poor woman who washes the consumptive's clothing; by the child upon whom the rite of circumcision was performed, the wound being sucked by a consumptive rabbi; by the patient who has been operated upon, in this case by the use of unclean instruments. It is communicated through the agency of flies, of drinking vessels, and, knives and forks.

It invades the system along with the meat, the milk, or the water we take. Thus, the hour of their greatest enjoyment may prove to many to be the saddest of their existence—the caress or the feast may have been the moment of their physical downfall.

As before stated, the sputum of the consumptive is met with everywhere; and, when we consider how prevalent is this disease, we can understand that the statement is not an exaggeration. And where the sputum is, there also is the bacillus. Thus, it is found in the dust of the houses of consumptives; upon the walls of their rooms; upon the bed-clothing; upon the headboard of the bed; upon the carpets, and upon the furniture. It is found in the shop of the consumptive worker, and in the hotel bed-room that has been occupied by a phthisical lodger. Wherever there has been a case of consumption, there we may confidently expect to find the germs of the disease.

One of the most important facts developed by recent researches is that consumption is directly transmitted from one person to another, either by actual contact, as in kissing; by inhaling the dust of rooms that contain the invalid's sputum, or by using the drinking vessels or handkerchiefs that have been imperfectly cleansed.

It was formerly believed that the affection was only susceptible of hereditary transmission—that the child of the consumptive father or mother was born with the seeds of the malady in its system, which were destined to develop in disease of the lungs in later life. The germ theory has caused a modification of this view. While it is possible that in certain instances children are ushered into the world with the bacilli tuberculosis in their systems, yet it must be admitted that the great majority of offspring of consumptive parents are free from the disease at birth. But they are *not* free from the inherited predisposition to tuberculosis. It is well-known that the children of such parents are more liable to die of consumption, or have tuberculous disease of the joints, glands, etc., than are the children of healthy parents. This is because their father or mother has transmitted to them a peculiar condition of the system that offers suitable soil for the cultivation of the tubercle bacillus, once it has entered their body. And the environment of such children renders it almost certain that the germs of the malady will be conveyed to their lungs, through the diseased parent's caress or the germ-laden air they must breathe. In this is the explanation of the extermination of entire families by consumption. The members of such a family, once the disease has entered the portals of their home, live constantly in an infected atmosphere. They inhale the dried sputum of the victim, they partake of it with their food, and drink it, as it is deposited, as a fine dust, upon their cup of tea, coffee or milk. Disgusting as is the contemplation of this phase of the subject, every physician knows the picture is not overdrawn.

The previously firmly established belief that consumption could only secure a foothold in certain families, by hereditary transmission, is, no doubt, primarily the cause of the carelessness which we have all observed on the part of those who are connected with a case of this kind. The sense of security that was imparted by the thought that no taint of the scourge was implanted in their systems has unconsciously been the undoing of many. Fortified with this conviction, they have exposed themselves in some of the many ways offered by a disease so prevalent. It may have been by kissing the patient, per-

haps by using his handkerchiefs, or drinking from the same glass. In this manner the germs of the malady have been conveyed directly to the circulation of the individual who, with proper care, should have escaped.

The prevention of tuberculosis is a subject that should interest, not physicians alone, but every individual who has arrived at an age to comprehend the importance of the matter. Let it be understood that the one cause for this disease is the living germ, the bacillus, and the most persistent agent in sowing it broad cast is the dried sputum of the victim. These two important facts being known, we are thus admonished that there are certain precautions that should be observed in every case of consumption. The first is that a patient should never expectorate on the floor, or on his handkerchief. He ought always to use a sputum cup, or cuspedor, which must contain water. In this way there is no possibility of the expectorated matter becoming dried and disseminated throughout the house in the form of dust. The carpets should be swept with a damp broom, and the sweepings burned. But it would be better to have rugs on the floor, which should be shaken at a distance from houses. The floors and wood-work of the rooms should be washed with water that contains a disinfecting solution, as carbolic acid or bichloride of mercury. The clothing and bed-clothing of the patient, upon which there may be sputum, should be burned, or disinfected by steam. The custom of using such garments, after death of the patient, by other members of the family, cannot be too strongly condemned. It may seem cruel to interdict kissing, but certainly the invalid should not be kissed upon the lips. The consumptive mother should not suckle her child. For the same reason all milk should be boiled, as cows affected with tuberculosis are potent factors in perpetuating the disease in the human family. The walls of a house that contain a consumptive should be frequently rubbed down with bread. Those who are looking for houses to rent or buy, would act the part of wisdom if, while they sought to know the number of rooms it contained, would ascertain if any one affected with consumption ever occupied it. If so, then all the paper should be removed from the walls, and the wood-work thoroughly cleansed with a disinfecting solution. Only in doing this is there safety. Parents should inculcate in the minds of their children the importance of avoiding public drinking vessels; and with this object in view, every child's school-satchel should contain a drinking cup. Teachers have opportunity for performing grand hygienic work in this respect, and may frequently be instrumental in imparting the instruction that is not given at home. Water designed for drinking purposes, which is not above suspicion, should be boiled. It is possible that the day will come when people will understand and appreciate the danger of drinking water into which has been conveyed the excreta and expectoration of patients suffering with all manner of disease communicable through the medium of living germs—germs capable of sustaining an independent existence for a long period in water. But, until the time does come when the inhabitants of cities shall demand uncontaminated water for domestic purposes, it behooves them to take such measures for safety as boiling affords.

The facts should be recognized that every case of consumption is a menace to the neighborhood, due to the existing popular ideas concerning this disease; and the time has come when physicians can take a positive stand against the present indiscreet conduct

of these cases. We now know it to be a contagious malady, and instances could be multiplied where healthy individuals and families have been contaminated by coming in contact with patients suffering with consumption. Therefore, the simple precautions noted in this paper could well be observed by every family wherein the disease exist; pending the time, which must surely come, when the sanitary authorities of our State and cities will take such measures as we known are indicated to lessen the prevalence of this terrible scourge.

Notwithstanding the many experiments that are at the present time being conducted, in all parts of the world, with a recently discovered fluid, it can be confidently asserted that the cure for consumption of the lungs has not been found; and it is the better part of wisdom for each individual to take such precautions as common sense and prudence dictate, in the light of the knowledge which we now possess of the cause of this disease, and the various vehicles that exist for conveying it from one individual to another.

The hygiene of every-day life contemplates self-preservation, which is nature's first law.

A GLORIOUS SUNSET.

By S. V. CLEVENGER, M.D.

WHILE on a recent visit to Frankfort, a very pretty little city of six thousand inhabitants, in Clinton county, Indiana, I was delighted to find that the practicing physicians there were of a very superior kind, and it did not take long for me to trace the cause of this to the fact that their preceptor, old Dr. Timothy B. Cox, was a veritable medical king, whose career is so full of events that typify the ideal country doctor, it should be known to medical students as worthy of emulation, and to physicians generally who are proud of what ennobles and beautifies our profession.

The doctor is a cousin of S. S. Cox, the late Congressman, and was born in New York State, January 9, 1817. He graduated from the Ohio Medical College, and the Bellevue Hospital Medical College, New York City, and began practice, when twenty-six years old, at Kirklin, where he remained twenty-four years, and then removed to the adjoining town of Frankfort, in which he has resided an equal number of years. His office and visiting work grew too heavy for his age and strength, and in 1887 he retired from practice with more love, respect and honor than I have heretofore thought it possible for a community to accord where gratitude was due.

Every true physician has too often in his early career experienced the bitterness of having ill returns for hard conscientious labor, and further along in years has grown to accept ingratitude as a matter of course, occasionally puzzled to account for some sporadic appearance of appreciation, and inclined to look upon it suspiciously as too much out of the common to be genuine, and undoubtedly our dear old Doctor Cox has had his share of these experiences, but he went his unswerving course for nearly half a century, blessing every household with his presence in times of distress, soothing pain, advising, counseling, *educating* the people how to care for themselves, and what he always considered his chief privilege, *how to avoid sickness*, until he became part of the landscape, and a snow-crowned mountain at that, commanding the reverence the Swiss holds for his Alps, as something too sublime for other than veneration.

His obstetric work numbers nearly three thousand cases, and he thought out for himself the method of detaining the onrushing head to allow time for the "physiological softening" of the perineum. An interesting series of experiences in this part of family practice being that he has delivered three generations. For instance, in the early forties he attended the birth of a female child, and in the sixties delivered her of a male child, and attended the wife of this latter, when in the eighties she was delivered, and he had also officiated at the coming into the world of this same wife.

When he began practice most of his routes were over trackless hills and prairies and through forests, the houses being scattered many miles apart, and he would often fall asleep on his horse; once he was awakened by finding himself knee deep in water, when his horse was fording a stream. At another time he was so sick that he wanted to lie down by the roadside, but had he done so he would have died there, as upon reaching home he was not able to leave his bed for many weeks, and it would have been a very rare chance for any one to have passed over the same route he had taken. Such instances, however, are but a very few out of the great number of events that an active life would encounter in living the greater part of this century.

During the civil war, when news of a battle came, in which his townsmen were engaged, or if it were practicable to reach the field in time, he would serve as volunteer surgeon, returning home only when he could be of no further use.

Typhoid fever, ague and dysentery were the most troublesome ailments he had to contend against, sometimes becoming endemics. In 1878 he encountered a wide spread prevalence of cerebro-spinal meningitis. In very early times he found his best results in the treatment of dysentery were obtained by pushing opium narcosis to its extreme. He used quinine in puerperal fever and anticipated antisepsis and asepsis by using "*warm water, after boiling, and plenty of it.*" Imagine a physician in the wilderness of Indiana, forty odd years ago, thinking out and applying the very principles we now find so useful in combatting septic troubles. He was in all this time an enthusiastic believer in cleanliness for wounds, and Lister himself admits that in that lies the secret of success in operations.

One of the deep set prejudices of the olden times, that gave him great concern, was the inordinate use of calomel by the people. He had the utmost difficulty in educating them up to take small doses of this drug, and hailed with delight the appearance of parvules, as enabling him to better regulate dosage on the minimum scale.

He taught his students—and he has had many of them—to avoid polypharmacy, and not to treat every little symptom, but to attack the disorder physiologically if possible, and in the case of self-limited diseases to avoid injudicious medication, but to sustain vitality as far as possible.

His experience and reflections (and he has done a great deal of deep thinking in his time) lead him to estimate properly the value of a consideration of heredity in diagnosis, prognosis, and as a guide to treatment. Many is the tendency, good and bad, moral and physical, he had traced through successive generations, until he has found himself treating in great-grandchildren, and by the same means, what decades before he had recognized in their families.

It was as good as going back to college again to have the privilege of listening for hours to the narra-

tion of the doctor as he modestly discussed his views, and what surprised me most was to find in one so old an apparently utter absence of that conservative clinging to olden superseded methods. In medicine he was as fresh as the youngest, and had arrived at many of his methods by exercise of his own brains.

And, withal, he was as jolly as he was kind hearted and able. Fond of his joke, even though it was against himself. It is told of him that at one time a very able surgeon, who was quite dressy in his appearance, met him in consultation, and as the old doctor believes more in the usefulness than the ornamentality of clothing, the comments upon one another made privately to a mutual friend were: "Does that old granger know anything?" and "I'm afraid your friend is too much of a dude." But externals were soon overlooked when the two came to know one another, and a life long regard began.

At another time a long-haired charlatan wearing a silk hat appeared in the town, and the doctor laid aside his own tile for many a day thereafter.

It is a significant saying in Frankfort that were the doctor brought into court to testify about anything, it wouldn't make a particle of difference what any lawyer, judge, or any other witness had to say, the doctor would be believed against all the rest. And it would take more than a sheriff to bring him there if he thought that by any possibility he might do harm to any one.

The physicians told me that he had been a father to them in counsel and solid helpfulness, and his place in the hearts of his neighbors is secure. He is now enjoying a refreshing rest from his life-work, much of which recalls some of the beautiful passages in Goldsmith's "Deserted Village," and justifies the title of this paper, for his remaining years are a glorious sunset, and his memory will be an after-glow for all time.

INTERNAL URETHROTOMY: WITH CASES.¹

By J. V. PREWITT, M.D.,
WEST POINT, KY.

THERE was a time within the memory of most of those present, when internal urethrotomy of the deep urethra was looked upon with suspicion. Many surgeons discarded it altogether, as it was so commonly followed by septic or urethral fever. It is a well-known claimed fact that in those cases of deep, close strictures, there is complicating matter more or less cystitic, causing the urine to be loaded with pus and various micro-organisms. Now, it was claimed, and I now say very justly, that after such operations the urethra was unable to clean itself, and as a natural result, there must be left in the fresh wound a greater or less amount of septic matter to become absorbed, and bring about the long train of toxic symptoms, which would so commonly follow the operation. But to-day, I am happy to say, that by the late modern antiseptic surgery, we are able to control the urethral fever and almost entirely keep down the many toxic symptoms which have been the great obstacle and disadvantage to the operation of internal urethrotomy. I have thought it best to give you the treatment and results of the following cases:

CASE I.—C. B.; section hand; aged twenty-seven years; called at my office wanting to be treated for gleet of nearly three years standing, which led me to make an examination, which showed two strictures

¹ Read before the Mississippi Valley Medical Association, Louisville, Ky., October, 1890.

of large caliber, one an inch and a half back from the meatus, and another two and a half inches back. History of long standing; stricture getting gradually worse. Operated; cutting with an Otis to 32 F.; no hemorrhage of any consequence, and no fever. Gave boric acid internally in ten-grain doses. Second day passed 28 F. sound straight. Four days later passed the same sound and discharged him. He continued at his work during the time, and as he has been under my constant observation ever since I operated, which was in May, 1890, I have examined the case several times since, and have been unable to find the slightest recontraction and no sounds were passed after the sixth day.

CASE II.—James G.; aged twenty-nine years; farmer; came to my office one morning suffering of retention of urine, wanting to urinate every fifteen or twenty minutes, and complained of receiving no rest at night as he desired to urinate at night as often, if not oftener, than in the day. Had been in this condition for five days, but for the last eight months had passed his urine much oftener than when in good health. Upon examination I found close stricture five and three fourth inches back. After hard work of over an hour and a half, I succeeded in passing a filiform. Patient would not consent to an operation; used rapid dilatation, dilating to 24 F. He then permitted me to operate, cutting with an Otis to 32 F., afterwards dilating to 34 F.; washing out with boric acid, and gave it internally, and five drops of oil of gaultheria. Had but little hemorrhage. Third day after operating passed 28 F. curved easily into the bladder; followed by a chill with a temperature of $103\frac{1}{2}^{\circ}$. Quinine given freely and kept bowels open, fever soon subsided. Sixth day, passed 29 F. straight, followed by another chill; temperature 102° ; repeated the quinine and boric acid internally; fever soon disappeared. Ninth day, passed 29 F. straight; no chill or fever. Ten days later I discharged him well. Three months later I made an examination and did not find the least recontraction. Upon inquiry, he said he had dissipated a great deal since I discharged him, but had experienced no bad effects and considered himself well.

CASE III.—P. P.; aged forty-five years; contractor; called at my office. Gleet discharge from urethra for two years. Examination showed a close stricture one inch back. Operated; used cocaine solution 4 per cent.; cut with an Otis to 32 F.; had but little hemorrhage and no fever; gave boric acid internally. Second day passed 28 F. straight, followed by slight hemorrhage. Fifth day passed same sound; no hemorrhage; and patient returned to his work. Five months later I heard of his marriage.

CASE IV.—B. J.; aged twenty-two years; carpenter; called at his room and found him in bed, suffering with retention of urine; was just getting over a protracted spree of two weeks. Examination showed a close stricture anterior to the bulb of the penile urethra. After an hour's tedious work I passed a filiform. I returned the next morning and operated, cutting with an Otis to 32 F. Catheter tied in bladder; washing with bichloride and boric acid solution, and giving boric acid and oil of gaultheria internally, as in previous cases. As patient had been suffering of malaria for the past two months, I added quinine, 5 grains every four hours. After thirty-eight hours I removed catheter. Third day passed 28 F. curved sound, followed by a slight hemorrhage and a chill; quinine given; fever soon subsided. Fifth day passed same sound into the bladder; no bad effect. Patient returned to his work fourteen

days after operating. He is a railroad bridge carpenter and I see him often, and he says he can pass as large a stream now as he ever did.

CASE V.—Anderson W.; aged thirty-three years. Examination showed stricture three and a half inches back. History of long-standing stricture. Operated, cutting with an Otis to 32 F.; also, did meotomy, as the meatus was scarcely 31 F.; slight hemorrhage and no fever. Second day passed 28 F. curved, and discharged patient. Returned in three months re-contracted. Cut again with an Otis. Put him on milk diet, as in previous cases. Ten days later passed 29 F. straight. Have not heard of him since.

Society Notes.

GYNECOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE.

February Meeting.

The President, DR. HENRY M. WILSON, in the Chair.

DR. NEALE reported the following case of

OCCLUSION OF THE OS UTERI DURING FOUR DAYS' PARTURITION.

Mrs. K. W., aged twenty-six years, white; one para. Past history unimportant. Last menstruation early part of April, 1890. Pregnancy normal up to November 16, 1890, when she slipped and fell violently on her right side on the sidewalk. There was no vaginal discharge at the time, and no discomfort except from the jar, bruising, and the patient was up and about all the time. No movements of the child were felt after the fall.

About Christmas, 1890, an offensive yellowish vaginal (uterine) discharge occurred, and continued for one week.

On the night of January 12, 1891, her first labor pains began, and were so severe as to require morphine given by her attendant. There was no "show" or discharge of any kind. The pains increased, and the patient was suffering severely when I saw her for the first time, Friday evening, January 16, 1891. She was a large, well-built and well-nourished woman.

Could not distinctly map out the child by abdominal palpation. By auscultation gurgling over the entire uterine tumor, and not a trace of foetal heart sounds could be heard.

By vaginal examination, very short and small vagina, no cervix and no os. A continuous layer of mucous membrane, flush with the vaginal walls, closed over the entire vault of the vagina, and a little dimple in its center was the only indication of where the os ought to be.

Patient chloroformed; placed in position; hand passed into vagina; finger pressed firmly against the dimple, when it suddenly yielded or burst open like a membranous web, permitting a gush of *not* foul smelling bloody water to escape, and at once the rapidly enlarging outlines of the os could be felt, then about as wide as a silver half dollar piece. The soft bagging scalp and loose cranial bones came down upon the enlarging, and as the expulsive efforts were almost *nil* I grasped the head with a Simpson's cranioclast, which tore away, and then the blades of a Tarnier basiotribe were adjusted over the head and neck, and a thoroughly macerated, but not decomposed or foul, small child was easily extracted. Perineum

intact; os fissured slightly. Small placenta appeared within six minutes. Considerable post-partum hemorrhage; uterus acting feebly. Os remained open about the size of a silver half dollar piece; thick edges; uterus rather small, but not firmly retracted. Two quarts of a hot intra uterine, 1-4,000, bichloride douche were injected. Patient rallied well, and debarring an occasional slight rise of pulse and temperature, and faintly foetid lochia, which readily yielded to the antiseptic douche, the puerperium was uneventful, and recovery complete. This case was a novel one to me. I am quite sure the membrane I felt was mucous, and not the amniotic sac, nor do I think the case should be classed among those of cervical occlusion or stenosis from endotrachelitis.

DR. J. WHITRIDGE WILLIAMS read a paper on

THE INDUCTION OF PREMATURE LABOR IN CONTRACTED Pelves.

He pointed out that the comparative neglect of the operation in this country was due to two causes: the absence of large lying-in institutions and the consequent lack of large amounts of clinical material, and the almost total neglect of pelvic measurement.

By the term premature induction of labor one understands the artificial interruption of pregnancy at such a period that a viable child may be born; that is, any period from the twenty-eighth or thirtieth week to the end of pregnancy.

Dr. Williams then went into the history of the operation, and showed that it was first rationally employed for this indication in England, as the result of a conference of the eminent physicians of London in the year 1756.

Within fifty years it was quite generally employed on the Continent, and soon enjoyed a popularity which caused it to be resorted to on the most trifling pretexts, and which, in 1869, called forth Spiegelberg's forcible denunciation of the operation by which he showed that the mortality both of the mothers and children was nearly three times greater after the operation than if the woman went on to term. This was soon followed by articles by Litzmann and Dohrn, who showed that Spiegelberg had painted the picture in colors far too dark.

Litzmann showed that in moderate degrees of contraction, 8.25 to 7.5 cm. ($3\frac{1}{4}$ to 3 inches), the operation was indicated in the interests of the mother, as shown by a mortality of 7.4 per cent. after the operation, compared with one of 18.7 per cent. when the woman was allowed to go on to term.

Dohrn stated that the proper method of appreciating what the operation accomplished was not to compare so many cases of induced labor with so many cases of labor at term, but to compare the results of premature and spontaneous labors in the same woman; by this method he found that twice as many children were saved by inducing labor as by allowing the woman to go on to term.

Consequently, they proved that the operation was indicated in properly-selected cases both in the interests of the mother and child.

The introduction of antiseptic methods into midwifery almost completely robbed the operation of danger for the mother, as will be readily seen from the following statistics. Thus, Haidlen reports forty-four cases from the Stuttgart clinic, with no maternal deaths, and 72 per cent. of the children saved.

In 1889 Korn stated that Leopold lost one woman in forty-five cases, and saved 66 per cent. of the children; and last July Ahlfeld stated that he had induced labor one hundred and eighteen times with

the loss of only one mother, and had saved 62 per cent. of the children. At the Berlin Congress Fehling stated that in sixty cases he had saved all the mothers and 80 per cent. of the children.

From the above sketch we will readily see that the maternal mortality in properly-selected cases is very slight, four hundred and one cases collected by Korn showing a maternal mortality of only 2.9 per cent., or just a trifle more than normal labor in a normal pelvis, while the foetal mortality ranges from 20 to 70 per cent., the average being about $33\frac{1}{3}$ per cent. So in this operation we have a means of saving about two-thirds of the children without any risk to the mother. Or, reckoning by Dohrn's method, we save at least twice as many children as if we allowed the woman to go on to term, and then resorted to some conservative operation.

These are prospects of the operation; but, unfortunately, the degree of contraction within which the operation is justifiable is very limited, and one can only think of it in moderate degrees of contraction.

According to Litzmann, in flattened pelvis with a conjugata vera of 7.5 to 8.25 cm. (3 to 3.25 inches), and to Schroeder 6.5 to 9.5 cm. (2.5 to 3.75 inches).

As pelvis with a conjugata vera above $8\frac{1}{2}$ cm. ($3\frac{3}{8}$ inches) offer a reasonable chance to both child and mother at term, and those below 7 cm. ($2\frac{3}{4}$ inches) offer no chance to the child, I think that the operation should be restricted to these limits—that is, between 7 and $8\frac{1}{2}$ cm. ($2\frac{3}{4}$ to $3\frac{3}{8}$ inches) in simple flattened pelvis.

In the justo-minor pelvis a conjugata of $9\frac{1}{2}$ cm. ($3\frac{3}{4}$ inches) or less will usually be an indication for the operation.

In the rare forms of obliquely narrowed pelvis, whatever its cause, we must be guided almost entirely by the history of previous labors.

We thus have the operation restricted to a very small range— $1\frac{1}{2}$ cm. ($\frac{5}{8}$ inch)—which should only be exceeded when the previous history tells us that the previous labors have all ended disastrously. We should not think of inducing labor in a flattened pelvis with a conjugata below 7 cms. ($2\frac{3}{4}$ inches), for in that case the prospects for the child are almost nil, and the dangers to the mother greatly increased.

Here we come to the relation indication for Cæsarian section, when it is best to allow the woman to go on to term, and attempt to save both mother and child by that operation.

With these contracted indications we readily see that an accurate idea as to the exact size and form of the pelvis is an absolute prerequisite for the performance of the operation; and the only means by which we can accurately obtain the information is by carefully measuring the pelvis.

We should not content ourselves with simply measuring the conjugata vera, but should also take the external measurements, and thereby attempt to determine with what form of pelvis we have to deal. After doing that, we must carefully examine the interior of the pelvis to determine its height; to see if it is generally contracted; and, if contracted, if the contraction increases as we approach the outlet. We must look for exostoses of the pelvic bones, and carefully examine the promontory to see if it is double or not.

If we think the pelvis contracted laterally, we should measure the distance between the tubera ischiorum on each side, as Breisky recommended. We should also attempt to estimate the transverse diameter of the pelvis, which is most difficult to do, and the most that can be expected is to examine

alternately with each hand, and try to stroke the linea innominata, and so relatively to get some idea as to the transverse diameter.

Having decided that an operation is necessary, the next question is, When shall it be done? Of course, the younger the foetus the smaller will be its size, and, consequently, the easier its delivery. But, unfortunately, the smaller the foetus the less chance it will have of living, even if it survive the operation. Generally speaking, we say a child is viable after the twenty-eighth week, but its chances of living are almost nil; indeed, children thirty to thirty-two weeks old have next to no chance of living. The later the operation the more chance has the foetus of living after it; but, unfortunately, its size, and, consequently, the difficulty of its delivery, increase with its age. If possible the operation should be done about the thirty-fourth to thirty-sixth week, our object being to operate at the latest possible period consistent with safe delivery.

To fulfill this object, we must attempt to gain an accurate knowledge as to the size of the child's head. Unfortunately, we are unable to determine its size with mathematical precision, or even with the relative precision of pelvimetry; so we are obliged to take advantage of every possible hint on the subject. Some of the following points may be of assistance in different cases. We must consider the mother's account as to the duration of the pregnancy.

Notice the size of the parents, large parents usually having large children. Inquire about the previous labors, particularly as to the size of the head. Endeavor to estimate the size of the head by abdominal and combined abdominal and vaginal palpation; and note the consistency and amount of resistance to compression that the bones of the head offer.

Try to measure the head with the pelvimeter through the abdominal walls, and deduct the estimated thickness of the abdominal walls from the result.

Notice the size of the large anterior fontanelle—average width, 2 cm.; the width of the sutures, and the distance from the anterior to the posterior fontanelle; for as they are larger or smaller, it indicates a larger or smaller head. Measure the length of the foetus as it lies in utero, from breech to vertex; double the measurement and it gives, according to Ahlfeld, the length of the foetus. If a foot is prolapsed, measure it, for Goenner stated that there is a difference of nearly 1 centimeter between the length of the foot of a child at term and one at thirty-two to thirty-four weeks.

One of the most important methods is that of Mueller, who attempts to force the head down into the pelvis by pressure from above. As long as he is able to force the head down, he knows that labor will readily take place, but when he can no longer force the head down, and when it bulges out over the symphysis, then he considers that the time for operation has arrived; as the great danger to the mother is from sepsis, one cannot be too careful in one's efforts to guard against it, and consequently one should be most particular in one's preparation for the operation.

For several days previous to operating, the woman should have a warm bath daily, and several times a day be doused with warm water, 95–98 F., containing salt or borax by which the cervix is softened and dilated. Just before operating the genitals should be most carefully washed with hot water and soap, followed by a 1–1,000 bichloride solution. The vagina should also be most carefully cleansed.

The hands of the operator should be washed for at least ten minutes in hot water, and the nail-brush vigorously used, after which they should be placed for several minutes in a 1–5,000 bichloride solution.

All instruments should be sterilized by steam, or placed in a 5 per cent. solution of carbolic acid for at least thirty minutes.

The most generally approved method is that of Krause, or the introduction of a disinfected flexible bougie between the membranes and the uterine wall. If properly conducted it is almost entirely devoid of danger for the mother, and will bring about the birth of the child in a period varying from eight to two hundred and fourteen hours, averaging about eighty hours, or about three days. To insert the bougie the woman is placed on her back or side, as may be most convenient, and the cervix brought down by a pair of bullet forceps, and the cervical canal carefully cleansed with bichloride on a pledget of cotton. The bougie is then carefully inserted, so that its lower end is within the vagina, care being taken not to wound the membranes or the placenta. Then the vagina is packed with iodoform gauze, care being taken not to wound the which serves to hold the bougie in place. If at the end of twenty-four hours no labor pains have been produced, the bougie should be removed and another introduced at another point under the same precautions as the first.

If this method fails we may resort to Kewisch's method of allowing a current of hot water, 100–110 F. to flow through the vagina several times a day for a period of five to fifteen minutes; or we may puncture the membranes as accessory to these; we may loosen the membranes about their lower pole; dampen the vagina with iodoform gauze, or employ Barnes' bags.

If the pains are weak, Fehling recommends version by Hick's method and bringing down one leg, whereby increased contraction is produced, and one is afforded a ready means of ending the labor if one deems it expedient in the interests of the mother or child.

DR. NEALE: I regard the chief point in this very able paper to be the endeavor to definitely fix the limits for the induction of premature labor in contracted pelves, not as opposed to Caesarian section, but as applicable to a distinct and separate class of cases. This endeavor I strongly advocate, but at the same time must confess that I do not believe the plan is always practicable at the bedside. There are so many factors entering into the determination of this question, as I stated in my paper, that I can now only repeat what I there quoted, viz.: "A given pelvis measurement is useful as an indication of what has been the experience of others under similar circumstances, but is not a final ground for decision."

After the evidence adduced, which doubtless represents the opinion of the best medical authorities, I am sure I only voice the concurrence of this society in accepting the limits for this operation, as stated by Dr. Williams.

This is practically in accordance with the teachings of Lusk, probably our strongest American authority, who places the range for the induction of premature labor in contracted pelves at a conjugata vera of from $2\frac{3}{4}$ inches (7 cm.) to $3\frac{1}{2}$ inches (8.75 cm.).

As stated in the paper, I believe the most reliable statistics of this operation are those of Dohrn, who compares the results of induction of premature labor with those of labor of term in the same case, showing a very decided advantage in premature labor. It must be remembered, however, as Litzmann has clearly shown, that children born alive by this oper-

ation are far more likely to die early than matured children. The risk to the child does not cease with the delivery.

I can not recall any reference in the paper to pelves contracted from hip joint disease, and yet I have met with two obstetrical cases of this character during the past two years in this city, both were in private practice, and both were primiparæ.

The first case I saw in consultation during a very severe labor at term, and delivered her of a still-born child by a difficult high (Tarnier) forceps operation.

Premature labor was induced on the second case at the eighth month. In this case the bougie was retained under antiseptic precautions (2 per cent. creoline cervical and vaginal douche and iodoform gauze over os) between the membranes and uterine walls for forty-eight hours without effect. It was then withdrawn, the douche again administered, and bougie reintroduced in a different position and retained for twenty-four hours again without effect. The sac was then punctured high up by the probe, and labor began in about fifteen hours. Thus we see the method of Krause, although the best may fail, where puncture of the sac will not.

As this lady was poisoned to death by an unclean servant who dressed and picked carious bone from her foot, and then attended my patient, and handled all her linen, napkins, etc., without my knowledge, it shows the importance of extending our antiseptic precautions to everything coming in personal contact with the case. As regards the method of delivery the experiments of Budin, and others, speak strongly in favor of version and extraction as opposed to forcements.

DR. KELLY: The subject is too large to be discussed formally. I will merely refer to one or two points of interest. A serious complaint is to be entered against the records of foreigners in regard to the statistics of infant mortality after premature labor. Many observers only state whether the child was born living or dead, some few state whether or not it was living when discharged from the hospital. What we want to know for practical purposes is whether the children live any time after they get home. My own experience is but few live. If they are sent out simply to die soon after at home, the induction of premature labor among the poorer classes simply becomes a species of uterine gymnastics.

A method of my own which I have found most successful in inducing premature labor, is taking a flexible whalebone bougie, introducing it between the membranes and the uterine wall, high up into the uterus, and sweeping it gently around for one or two inches in either direction. This has not failed me in any instance in bringing on labor.

WILLIAM S. GARDNER, M.D., Sec'y.

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The Polyclinic.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Reported by J. T. TAYLOR, M.D.

IN speaking of a case of incontinence of urine, occurring in a boy ten years of age, Dr. Rex said that you should endeavor, if possible, to ascertain the cause—whether that be due to a relaxed condition of the sphincter of the bladder or some remote reflex condition. Frequently, he said, incontinence is due to an irritable condition of the urine itself; to a relaxed sphincter; to a calculus in the bladder; and in some to an adherent prepuce, which was the case in

this particular instance. For this condition, he breaks up the adhesions by separating the prepuce from the glans, which was done in this case with some difficulty. In cases where belladonna is administered, begin with about 3 drops, increasing a drop each day until its physiological effects are produced; then holding at that for a few days; then gradually reduce. In a hyperæsthetic condition of the bladder a good combination is:

R.—Potassii bromidi..... gr. xx-xxx.
Tr. belladonnæ... grt. iij. M.

The patient was ordered 10 drops of liquor potassa in milk every three hours, and alcoholic baths in proportion of 1 drachm to 6 drachms of water, and the following prescription:

R.—Pepsini..... gr. j.
Bismuthi et ammoniæ citratis.... gr. ij.
Strychninæ sulph..... gr. ʒss.
Elix. simplicis..... fʒj.

M.—S. A teaspoonful three times a day after meals.

Prof. Keen recently operated on a man seventy-five years of age for hydrocele, doing a radical operation. After removing the tunica vaginalis, which had become enormously thickened, he stitched the edges together with a continuous suture, so that any small vessels remaining bleeding would be checked in this way. A rubber-tube and horse-hair were used for drainage. The rubber-tube, he said, should be removed in twenty-four hours; the horse-hair in three or four days; and, at the end of five or six days, remove the stitches.

For a patient complaining of neuralgic pains, severe headache, at times vomiting, irregular menstruation, very anæmic, no heart lesions, was given a modification of Bland's pill, viz.:

R.—Ferri sulph. exsiccati,
Potassii carbonatis..... āā gr. jss.
Acidi arseniosi..... gr. ʒss.
Strychninæ sulph..... gr. ʒss.
Aloes..... gr. ʒ.

M.—Ft. in pil. No. i.

In a case of simple goitre, iodide of potassium was given internally, and iodine and lanolin painted over the external surface of the goitre.

A case of cancer of the pylorus brought to the clinic presented these symptoms: The patient was forty-seven years of age; had previously enjoyed good health; has pain in the epigastrium, aggravated by eating, generally coming on some time after meals; great emaciation; constipation; temperature below the normal; has never vomited blood; pain on palpation, localized at one point; a hard, resisting mass was felt in the right hypochondriac region. The treatment was symptomatic. An easily assimilated diet. For the relief of the pain, cannabis Indica. Bichloride of mercury, $\frac{1}{80}$ grain, in solution, three times a day.

In speaking of a case of pneumonia, it was asserted that early delirium in pneumonia was strongly suggestive of interperate habits. The treatment should consist in keeping the patient well stimulated with brandy, to be substituted later with quinine.

Prof. Brinton, in speaking to the class on cystitis, said that it is very frequently produced by the introduction into the bladder of filthy instruments, and frequently, too, from the "residual urine" that has undergone ammoniacal changes. The treatment should consist in giving the patient hop-tea, poultices over

the lower part of the abdomen and over the bladder. Hot sand-bags do not permit any of the urine to remain in the bladder. Wash out the bladder frequently with some antiseptic solution, a good formula being :

R.—Glycerini..... f℥ij.
Sodii bicarb..... ℥i.
Aquæ..... f℥iv.

M.—S. Take f℥ss, and add to 4 ounces of tepid water, and inject.

Prof. Brinton, at a recent lecture, gave the class the following plan for making filiform bougies: Take a whalebone strip, which, when split in two, will make two bougies; cut off the end perfectly square, then make a round or olive point by rotating the end on a piece of emery paper; to make the neck, make a series of incisions, and, commencing three inches from the point of the filiform with the edge of the knife, scrape toward the point; the neck should slope gradually to the point, then it should be made to pass through a tunnel catheter, and, lastly, finished by passing a number of times rapidly through the catheter.

For atonic dyspepsia Dr. Brubaker recommends:

R.—Tinct. gentianæ comp..... f℥iij.
Sodii bicarb..... f℥iv.
Tinct. nucis vomicæ..... f℥ij.
Syr. rhei aromatici..... ℥j.

M.—S. Take a dessertspoonful in water before meals.

Prof. Parvin says hemorrhage from uterine fibroids can be checked by the use of electricity or hot water injections.

COMPARISON OF THE OCULAR TROUBLES IN LOCOMOTOR ATAXIA, MULTIPLE SCLEROSIS, AND HYSTERIA.—In a recent clinical lecture at the Salpêtrière, Charcot considered comparatively the ocular troubles occurring in tabes, multiple sclerosis, and hysteria.

Amblyopia with nacreous degeneration of the papilla is often the first symptom of locomotor ataxia, even preceding the motor incoördination, the diminution of the reflexes, the lightning pains, by many years.

Nystagmus, when not hereditary, has a symptomatic value almost as great in the diagnosis of disseminated sclerosis.

In tabes, paralyzes of the motor muscles of the globe of the eye are very frequent, especially paralysis of the muscles innervated by the *motores oculorum*. When in presence of the diplopia proper to paralysis of the third pair, one should always have in mind the probability of tabes. Paralysis of the abducens has also been witnessed in tabes, but very rarely.

In disseminated sclerosis, it is the abducens which is attacked in preference; paralysis of the *motores oculorum* is much less frequently seen.

Hysteria may sometimes engender strabismus by paralysis or by spasm; it may give rise to associated paralyzes, but never to nystagmus. In hysteria, there is also the lid-drop, and the ptosis is due, not to paralysis of the levator muscle, but to spasm of the orbicularis. We find, moreover, in hysteria, a symptom not met with in any other affection, namely, monocular diplopia, so well-studied by Parinaud. Diplopia is generally binocular, and is due to paralysis of the third pair or of the abducens.

The condition of the pupils in locomotor ataxia is peculiar; they are generally contracted. This is especially noticeable in patients who have blue eyes. Sometimes the pupils are unequal; one is moderately dilated, the other is small. This inequality of the pupils is only seen in two diseases, general paralysis

and locomotor ataxia. There is another sign equally common to these two affections, that is, what is designated under the name of the Argyl-Robertson pupil. If near to one of these pupils when moderately dilated you hold a light, the pupil does not contract; if you place the patient in a dark room, you will observe that the pupils fail to dilate. The pupils do not contract under the influence of light, while under the influence of efforts of accommodation, they react as in the normal state.

Nothing of this kind is observed in multiple sclerosis. Generally in this affection there is nothing special to remark in reference to the pupil.

In tabes, one may frequently witness sclerosis of the optic nerve; the ophthalmoscopic observation is like an autopsy on the living subject. The retinal vessels are seen to be small and atrophied; the nerve has a pearly-pale, anæmic aspect (nacreous papilla); these appearances are always of unfavorable augury, and the patient who presents them will be surely tabetic and blind in the course of a year or two.

In multiple sclerosis, there may be lesions of the fundus oculi, but both eyes are not irretrievably affected, and the amblyopia lasts only four or five months; at the end of this time, there is always an amelioration. Ulthoff, out of one hundred cases, noticed but one case of blindness. In this form of sclerosis, the contours of papilla are less sharp than in the normal state; there is a sort of cloudy exudation, the vessels are atrophied; the general aspect is that of a dull, yellowish-white in extreme cases.

In hysteria, there may be amblyopia, even complete amaurosis, but the modifications of the papilla noted in sclerosis are never witnessed; the functional troubles may be very pronounced, but are sure to disappear. Hysteria almost always causes a contraction of the visual field, which is concentric instead of being irregular, as is the case in locomotor ataxia. In the latter disease, the campimetric image presents notches and indentations; at the same time, there supervenes a dyschromatopsia which has quite peculiar characters. An individual, who is not affected with congenital Daltonism, will affirm that the pantaloons of the foot soldiers appear to him black; the trees, instead of being green, are to him of a grayish-black color; at the same time vision for yellow and blue is still perfectly good. By and by the vision for yellow and blue ceases in its turn, the visual field contracts more and more, till white itself is no longer perceived.

In hysteria, dyschromatopsia is much less frequent than in tabes, and when it does exist, the colors do not disappear in the same order. It is first the blue which is no longer perceived, then the yellow, then the other colors successively, with the exception of red, which persists alone during a very long time.

In disseminated sclerosis, there is nothing to note respecting the visual field or the perception of colors.

—*Boston Med. and Surg. Jour.*

ALCOHOL IN ALBUMINURIA.—Dr. Guvich has examined very minutely the effects of giving alcohol in a number of cases of both chronic and acute forms of nephritis in the wards of the Obukhoff Hospital in St. Petersburg, and comes to the conclusion that in both classes of cases moderate quantities—that is to say, from three to six ounces of spirit containing 40 or 50 per cent. of alcohol—may be given daily for a fortnight without in any way acting injuriously on the kidneys, and without increasing the amount of albumen in the urine. It does not, he finds, exert any effect upon the quantity of urine secreted.—*Lancet*.

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MALARIAL HEMATURIA.

IN the *Atlanta Medical and Surgical Journal* for April we find two communications upon the above subject. In one, Dr. Howell strongly combats the idea that quinine is the cause of malarial hemoglobinuria; pointing out the fact that in all the fatal cases reported by Dr. Martin, calomel was given in connection with the quinine, and the former was the toxic agent. Dr. Howell states that quinine is not always found to have been given previous to the occurrence of hemorrhage in malaria; consequently this drug cannot be the only cause. It remains, then, to be proved that identical symptoms may be produced by two diverse and, indeed, diametrically opposite causes; namely, quinine and malaria. The same reasoning may be applied as well to Dr. Powell's theory, that calomel is the cause of the hemoglobinuria. If calomel is proved to have in every case been administered previous to the hemorrhage, it will occupy the most prominent place among the assumed causes; if not, the likelihood of calomel and malaria both causing the same form of hemorrhage is uncertain; though not equally so with quinine. Dr. Howell then quotes a table from Feraud, showing that when quinine in very small doses is given, with calomel in large doses, the mortality from malaria is great; and as the quinine is increased and the calomel diminished, the mortality lessens; until, when quinine alone is given, in large doses, there are no deaths at all.

It is a pity Dr. Howell has not enhanced the value of his article by giving the source of his quotation, which is quite conclusive if authentic and confirmed by extended experience. What is worth doing at all is worth doing well.

When will men learn that if they wish to obtain accuracy in testing a drug, it must be given alone? Would that Koch could inoculate the entire medical profession with his systematic methods of investigation and dispassionate manner of estimating results. We need in malarial hematuria, as in many another

foggy corner, an intelligent study of cases, and their careful recording. The facts we desire are these:

1. Does hemoglobinuria ever occur in malarial cases, where no quinine, arsenic or calomel has been previously administered?

2. What is the course of the disease if uninfluenced by treatment?

3. In what proportion of cases do the symptoms become graver after the administration of these or other drugs, given singly?

When we are supplied with such data we shall be prepared to decide this important question; until we have them, all that is said on either side is of little consequence; as one excellent practitioner will have a conviction that quinine cures; another an impression that it kills; and neither has taken enough pains to study the question to entitle him to have any opinion at all. Give us facts, gentlemen, and not opinions. Greater is he that can record a few cases correctly than he that hath constructed an interpretation of the Apocalypse.

Annotations.

AT the suggestion of Dr. William Perry Watson, Secretary of the State Board of Medical Examiners of New Jersey, Dr. Rauch has called a meeting of one or more representatives of the various medical licensing boards in the United States, to be held in Washington, D. C., on May 6, during the meeting of the American Medical Association, in order to effect a permanent organization, and to make rules and examinations as nearly uniform as possible. Licensing boards now control medical practice in twenty-one States. It is expected that much good will come of this meeting.

IN *The Lancet*, Greig Smith describes a curious case. Ileostomy was performed to relieve intestinal obstruction. This was due to a solid, globular tumor, the size of a child's head at birth, and was looked upon as probably sarcomatous. For this reason it was not removed at the operation; but the tumor gradually became smaller, until at the end of fourteen months from the operation, it had entirely disappeared. The tumor was certainly not fecal. An aspirator needle was passed deeply into it, and showed it to be solid. The puncture bled freely. It was on the left side of the abdomen, and extended from the pelvis to the umbilicus. It was firmly fixed, of a dusky hue, and large vessels coursed over it. The patient was a man, aged twenty-five years. Such cases must be exceedingly rare; inasmuch as very few go unrecorded, and the published instances are not often seen in the journals.

THE most elaborate clinical chart we have yet seen is that just issued by Drs. Bailey and Linsley, and entitled *The Post-Graduate Clinical Chart*. It contains a printed schedule for the first examination, with diagrams for the back and front of the chest; a laryngeal page, also with diagrams; charts for temperature, pulse and respiration; and pages for the daily record of general and special symptoms. The price is twenty cents per book; each containing pages for recording one case for eight weeks. There are special cases occurring in every

physician's practice, for which he needs something far more elaborate than the ordinary charts; and this need is fully fulfilled by the one before us. This can be obtained from Dr. Linsley, 226 East Twentieth street, New York City.

IN all the various systems of physical culture now in vogue the greatest importance is attached to taking the breath properly. The breathing should be slow and deep, six breaths a minute being a safe average. There is still a difference of opinion in respect to the relative value of abdominal and chest breathing, and each system has its advantages. One of the best exercises for increasing the capacity of the lungs is to draw a full breath very slowly and through the nose. Keep the lungs inflated as long as possible, and then expel the air suddenly through the mouth and repeat the process. Care should be taken not to try to make the period of holding the breath too long at the start; the more gradually the power of doing this is attained the better will be the permanent results. There are many breathing exercises, and one of the best is the taking of a deep breath and swinging the arms, first one then the other and finally both, while the breath is inhaled. Excessive practice of any system should be avoided and the golden rule of taking moderate and judicious exercise should be observed.

THE use of baths of all kinds has been rapidly on the increase in this country of late years, and the Turkish bath is now recognized as a necessity by thoroughgoing disciples of hygiene. By such a recent invention will gladly be received. This invention consists of a flexible bath-tub, that can be rolled and folded up in a small package, which can be easily stowed out of the way. It is thus a handy article for persons traveling or occupying rooms, and under all conditions it provides a prompt means of obtaining a Turkish, vapor or steam bath, the heat being furnished either by an alcohol lamp or a steamer. The cover of the bath is conveniently arranged, and a flap in the top of it is left open until the person has entered the bath, when it is buttoned like the rest of the cover, a collar of soft cloth fastening around the neck so as to prevent the escape of steam or hot air, while at the same time allowing the person in the bath to move about. When a dry heat is required an alcohol lamp is introduced within the bath, and when steam is required it is provided by the use of a suitably constructed steamer. Should a douche be required after the bath a waterproof cloth, with the edges turned up, is used to catch the water.

SOME ATYPICAL PHENOMENA IN TYPHOID FEVER.

THE variations from the typical course of typhoid fever are often very striking. Dr. Alexander McPhedran, in *The Canadian Practitioner* for March 16, has grouped some of the most interesting irregularities of the disease. Frequently, instead of the gradual rise of temperature at the onset of the disease, there will be a decided chill, followed by a rapid rise of temperature; while in other cases, still more frequently the initial symptoms will be vomiting and purging associated with a high temperature. To insure a correct temperature record it is necessary that several observations be made daily, instead of the usual two or three times per day. In many of his cases McPhedran finds the fever aborts after a duration

of from seven to ten days or less. There is another class in which the elevation of temperature is of short duration. In these, the temperature never high, falls to normal, or even below, after a few days, although the disease does not abort. In a third class, instead of febrile movement the temperature is normal or sub-normal throughout. Phlebitis is an interesting complication of the disease. That it is a phlebitis, or an endo-phlebitis, with thrombosis resulting, there can be little doubt, and that the immediate cause is septic is rendered almost certain by the pyæmic character of the consequent febrile disturbance. What the nature of the sepsis is, and whether it is the same in all cases, requires further investigation to decide. The phlebitis occurring during the fever is probably directly due to the bacteria of typhoid; phlebitis occurring as a sequel is probably caused by the absorption of septic poisons from the intestines, where they are generated by the processes of ulceration and decomposition.

When post febrile insanity occurs as one of the sequellæ of the disease it is desirable that, when possible, it should be treated at home to avoid the unpleasant after feeling that attaches to incarceration in an asylum. The treatment should consist in careful, constant watching, the fullest possible nourishment, tonics, good hygienic surroundings, massage, and rest in bed.

Constipation, while generally of favorable prognostic significance, may give rise to symptoms of grave ptomaine poisoning. It would seem as if the excreta being retained in the intestinal canal the poisons are absorbed freely into the system.

Book Notices.

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SOME REMARKS ON THE USES OF PHOSPHORUS AND ITS COMPOUNDS IN THE HUMAN ECONOMY. For the Medical Profession. Part X. New York: Jas. I. Fellows, 48 Vesey street. 1890.

REPORT OF THE BOARD OF HEALTH OF THE CITY OF READING, PA. For the year 1890.

INSTITUTUL DE CHIRURGIE, ANUL 1890-91. Bucuresti, Lito-Tipografia Carol Göbl, 16, Strada Doaumei, 16. 1891.

The volume contains articles as follows: Aristol, de Dr. T. Romano; Tratamentul Rheumatismului, prin mercur, de Dr. V. Calalb; Puls si Temperatura, de Dr. G. Tzoncin; Cercetari asupra Meduvei prelungite, de C. Popescu; Topographia Cranio-cerebrata, de Prof. Assaky (beautifully illustrated by colored plates and engravings); Acidului di iodosalicic, de Dr. V. Calalb; Iodhydratul de Iodat de Chinina, de Dr. G. Tzoncin; Diagnosticul Tumorilor Intra-abdominale, de Prof. Assaky (illustrated by eight photographs). The remainder of the book is occupied by clinical lectures, delivered by Prof. Assaky. The paper, typography, and binding would be creditable to Blakiston, and show how Roumania has advanced in the ways of civilization.

THE YEAR-BOOK OF TREATMENT FOR 1891. Philadelphia: Lea Bros. & Co. 1891. Cloth, pp. 480.

A concise epitome of what the authors consider the most important articles of the year. This year's volume is larger than usual, but differs in no other respect from its predecessors. That it is in any sense a complete summary is not to be expected; nevertheless, it is a useful book, and contains abstracts of many valuable papers.

MANUAL OF THE DOMESTIC HYGIENE OF THE CHILD. For the use of Students, Teachers, Physicians, Sanitary Officials, and Mothers. By JULIUS UFFELMANN, M.D. Translated by Harriot Ransom Millnowski. Edited by Mary Putnam Jacobi, M.D. New York and London: G. P. Putnam's Sons. 1891. Cloth, 8vo, pp. 229.

Dr. Jacobi's warm recommendation of this book is enough to indicate its value; and an examination shows this good opinion to be well-founded. Between the author and the editor the happy mean is well secured of making the work intelligible to the non-professional reader and still of value to the searcher for facts stated with scientific precision. The chapter on artificial feeding is good as far as it goes; but many of the articles mentioned are unfamiliar to eyes occidental, while foods concerning which we would have been glad to know the author's opinion are not mentioned. After reading this chapter we feel convinced that the science of preparing infants' food cannot be carried to the perfection in Germany it has reached here. It is to be regretted that the editor, who has added so much of value to the original book, has not supplemented this deficiency out of her own stores. But let not the reader conclude from this that the book is not of worth. It is the critic's duty to show that even where so much is given more might have been added with advantage. In many respects this book is commendable; and we would advise our readers to purchase and read it, as an excellent introduction to the summer's work.

The Medical Digest.

NIGHTMARE.—This trouble may be a forerunner of heart disease, apoplexy, epilepsy, etc. This being the case it will certainly stand every practitioner in hand to make a close investigation of these cases, and if possible remove the cause and prevent further danger.—E. E. Bamford, *Med. Brief*.

GLEET.—In four years I have treated fifty cases of inveterate gleet, with most satisfactory results, by the introduction into the urethra of Beniqué's duly curved tin bougies, anointed with either Unna's salve:

R.—Ol. cacao..... gr. xv.
Cerae flavæ..... gr. xxx-xxxv.
Bals. Peruv..... gr. xxx.
Argenti nitratis..... gr. xv.

M.—F. ung.

Or Sperling's:

R.—Lanolini..... 3v.
Cerae albæ..... 3j.
Argenti nitratis..... gr. jss-ivss.

M.—F. ung.

—Szadek, *Atlanta M. & S. Jour.*

SPONTANEOUS COMBUSTION.—At the Manchester Pathological Society, Dr. E. S. Reynolds read a paper on So-called Spontaneous Combustion, with details of a recent case. All the reported cases of so-called spontaneous combustion might be divided into five classes—(a) hysterical, (b) spurious, (c) true sponta-

neous combustion, (d) increased combustibility, (e) homicidal. Probably no such thing as true spontaneous combustion had ever occurred, and almost every case was merely one of increased combustibility, the body being first set on fire, and then going on burning independently like a candle. The presence of fat in the body was a great aid, although some patients had been thin; alcohol seemed to play a more important part, but how it acted was unknown. In a recent case a thin woman, aged forty, had, while drunk, fallen near a hearth, where she was found next morning with the flesh still burning. The femora were carbonized, the knee-joints open, but the stockings entire. The abdominal wall was burnt away, and the intestines and stomach protruding, the latter being burnt through; the hands, head and hair had escaped. The surrounding furniture was merely scorched.—*Brit. Med. Jour.*

CEREBRAL SYPHILIS.—Syphilis is indicated with sufficient probability to determine the treatment, irrespective of other signs of the disease and the patient's history, in the following cases:

1. Sudden cerebral hemiplegia in patients under forty-five, in whom atheroma, high arterial pressure, and the causes of embolism, notably endocarditis, can be excluded.

2. Progressive multiple cerebral palsies.

3. Insomnia and nocturnal headache, followed either by cranial nerve palsy or cortical irritation.

4. Sudden stupor or coma, without other assignable cause. Somnolence, resembling that of alcoholic intoxication, with pain in the head and aimless, automatic actions.

5. Paretic dementia, in which syphilis cannot be excluded, especially with prodromal nocturnal headache, insomnia, or somnolence and early epilepsy.

In all of these forms the prognosis is good, compared with the gravity of similar symptoms not due to syphilis, but it should be guarded on account of the possibility of irreparable damage having been already done, and the occasional impossibility of securing the absorption of a gumma.—Perching, *Med. News*.

A METHOD OF ADMINISTERING IRON IN LARGE QUANTITIES.—With a view of seeing how much iron an anæmic person could take, and also whether the rapidity of progress would be hastened, I determined to try on a suitable case the effect of an almost continuous administration of the perchloride of iron.

I took a very extreme case of anæmia which presented itself in a girl of nineteen years, who worked in a tailor's shop, and who had been getting gradually worse for two years. She lay in bed, hardly able to move without causing dyspnoea, and showing lips and eyelids almost as bloodless as her cheeks. Having improved her digestive organs a little I began to administer the iron. I placed by her side a quart bottle of a solution of the tinct. ferri perchlor. with some sp. chloroformi and a tumbler, telling her to sip at it as much as she could day and night. This method of taking medicine she entered into with much zest, taking nearly three pints in the first twenty-four hours. The strength was gradually increased from 5 minims per ounce to 25 minims, and she continued to get through about a quart a day.

She improved most rapidly, and before she left the hospital, which she did in four weeks, was able to busy herself in the ward for the whole day without fatigue. The amount of iron consumed in twenty-seven days was exactly 30 ounces of the *British Pharmacopœia* tinct. ferri perchlor., and that large quantity

without upsetting the stomach or necessitating the use of any stronger purgative than a pill of aloes and nux vomica administered daily. If, on the other hand, she had taken the iron three times a day in doses of 20 minims, the amount consumed in the same period would have been 3 ounces 3 drachms.

It is generally held in the treatment of anæmia that small doses are as efficacious as large, owing, I believe, to the fact that large doses so frequently upset the digestive tract, and so prevent absorption. Now by the continuous method, with a tractable patient, one gets a very large amount taken, but in a very dilute form, and also the patient's stomach is able to decide when, and how much at a time, it is willing to receive.—C. H. Taylor, *Brit. Med. Jour.*

SALOL AS AN ANTISEPTIC IN CANCER OF THE UTERUS.—Of the symptoms characterizing cancer of the uterus in its later stages, more especially when it is complicated by a vesico vaginal fistula, none is more trying to the poor sufferer than the repulsive odor proceeding from the diseased surface. The palliative means in ordinary use, such as injections of carbolic lotion, sublimate and iodized solutions, vaginal suppositories of iodoform, etc., are only partially successful in mitigating the fetor which renders the last days of the patient a veritable martyrdom to herself and to her *entourage*. In salol administered internally in daily doses of from two to four grammes (increased if need be to six or eight grammes, and continued uninterruptedly for a long time) Dr. Marty, of Toulouse, claims to have discovered a sovereign remedy for this state of things, provided there be a communication between the vagina and the bladder. The urine, flowing constantly over the diseased tissues and impregnated with the products of the decomposition of the salol—viz., a phenylsulphate and salicyclic acid—keeps the parts sweet, and its action adds greatly to the comfort of the patient.

ACUTE TRANSITORY ŒDEMA OF LUNG DURING THE PNEUMONIC CRISIS.—Dr. Max Kahane, of Vienna, records two remarkable cases of acute transitory œdema of the lung occurring just at the commencement of crisis in the course of acute pneumonia (*Centralblatt für Klinische Medizin*, No. 10, 1891). Two laborers were under observation at the same time, all points of the two cases closely resembling one another. The patients had both been more or less addicted to alcohol, and had both reached the point of crisis from ordinary acute pneumonia, the temperature having just begun to fall. When seen at this period they were found to be extremely collapsed, with very weak heart action, covered with cold sweat and cyanotic. The chests were examined, and in both cases all the physical signs of œdema of the lung were present over the greater part of both lungs. Restoratives being promptly applied, a marked change was almost immediately observed, and on further examination it was found that the signs of œdema were rapidly clearing up, and in a very short time had disappeared entirely. The normal course of "crisis" followed, and the patients made a good recovery. There was no excessive expectoration of watery fluid from the lungs after the subsidence of the œdema. Œdema of the lungs is not by any means rare after acute pneumonia, but it is almost always fatal. The sudden onset in cases where the heart's action had become so greatly depressed, just at the moment when the great change of crisis had begun, is remarkable, but not easily explainable.

—*Brit. Med. Jour.*

USTILAGO MAIDIS.—I have, in a dozen cases of tedious labor, administered *ustilago maidis*, and for the same purpose, in more than a hundred, administered *secale cornutum*, and will now deduce some of their differences of action. I have noticed that the *secale cornutum* generally produces one continued, persistent contraction of the uterus, while the *ustilago maidis* increases the power of action of the uterus and the frequency of its rhythmical muscular contractions; it does not prevent the rhythm of parturition; and thus, though I never lost a patient or child in the administration of either remedy, I can fairly infer that *secale cornutum* is more dangerous to the life of the child than *ustilago maidis*, on account of the *ustilago maidis* allowing of the alternate contraction and relaxation of the uterus. I find that it has no virtue in preventing or curing post-partum or ante-partum hemorrhage, and I have sometimes with good effect administered *secale cornutum* to cure post-partum hemorrhage after having accomplished the delivery by the aid of the *ustilago maidis*. I find that in cases of abortion without hemorrhage, when it is perceived that it cannot be prevented, that *ustilago maidis* is the best agent to hasten their completion. I find that although *ustilago maidis* has no virtue in curing ante-partum, or post-partum hemorrhage, it is a very sure remedy for ordinary amenorrhœa.

The dose of the saturated tincture is one drachm, given oftener or more freely than *secale cornutum*. It has no advantages over *secale cornutum* in the treatment of fibroids; but would be nearly as good.

—Hubbard, *Med. Brief.*

DEATH FROM SUFFOCATION WHILE RECOVERING FROM ETHERIZATION.—Dr. Walter W. H. Tate, resident medical officer, University College Hospital, has sent us the following particulars of a case upon which an inquest was recently held; some of the reports published have incorrectly attributed the death to chloroform. "H. P., aged twenty, came up to this hospital on March 12, to have the operation of circumcision performed, which was rendered necessary owing to the presence of phimosis. He had been instructed in the morning to have no food after 2 o'clock, the time for the operation being fixed for 8 P.M. Ether was administered, and the patient took it well all the time, and the operation was completed without any trouble. The anæsthetic had been suspended for five minutes when the patient began to vomit, and during the vomiting he became suddenly cyanosed and stopped breathing. The operator then passed his finger to the back of the pharynx and removed a large piece of undigested meat, which was found fixed in that region. This did not relieve the breathings, so laryngotomy was performed, and an attempt was made to clear the trachea, but without success. Artificial respiration was employed, but the patient never rallied. At the subsequent *post-mortem* examination it was found that a large mass of partially digested meat was fixed in the lower part of the trachea, extending into the two bronchi, and completely closing the lumen of the tube, and the stomach was found to be loaded with semidigested food. At the inquest the patient's friends informed us that he had a large meal at 4 o'clock in the afternoon; and it is probable that if he had carried out his instructions with regard to abstinence from food the accident would not have occurred. The death was certainly not in any way due to the anæsthetic used."—*British Med. Jour.*

DRESSINGS USED IN BILLROTH'S CLINIQUE.—1. *Iodoform Gauze*: This is first sterilized, and then it is soaked in the following mixture: Iodoform, 50 grains; glycerine, 100; alcohol, 400; then squeezed, and dried with sterilized cloth.

2. *Klebende Iodoform Gauze* (colophonium used in its preparation).

3. *Tannin Iodoform Gauze*.

Silk: This is almost the only thing used for sutures, etc. It is disinfected as follows: Boiled in 5 per cent. carbolic lotion for an hour, then wrung out with disinfected hands, and boiled for another hour in 5 per cent. carbolic, then left for fourteen days in carbolic lotion, when it is ready to be used.

Catgut: First washed with *potash* soap, then laid twice for twelve hours in ethylic æther, then dried, and sterilized in a dry chamber by raising the temperature to 120° C., then laid in 1 to 1,000 sublimate for twenty-four hours, and finally kept for use in absolute alcohol.

Instruments before laparotomy to be boiled for one hour in 5 per cent. carbolic lotion.

Silk, catgut, and instruments, during the operation, placed in 2½ per cent. carbolic lotion; not in 5 per cent., as was previously done.

Needles, clamps, saws, lie always in 15 per cent. carbolic glycerine.

Hypodermic needles and syringes kept in 15 per cent. carbolic oil.

Drains kept at least fourteen days in carbolic lotion before use, and always remain therein.

Sponges not used, hydrophile gauze being employed instead. Pieces are folded (tenfold), sterilized in the hot oven, and then boiled for one hour in carbolic lotion, 5 per cent.; then kept in carbolic or in sublimate, 10 per cent.; and, just before the operation, placed in 1 to 3,000 of a sublimate solution.

During the operation the wound is washed in a 1 to 3,000–5,000 sublimate solution, which is also used for the hands, tartaric acid being added to lotion, as well as fuchin to color it.—*Med. Press*.

CAMPHORIC ACID IN NIGHT-SWEATS.—A man, aged thirty-five, was brought into the hospital in the early part of January, suffering from advanced phthisis, with a large cavity at the left apex, and with numerous smaller cavities in both lungs. There was a good deal of expectoration of purulent matter, and a loose, racking cough; rapidly progressing emaciation, with that peculiar flattening of the wrist which we so often see, so that the forearms looked like laths; and with such persistent and aggravated night-sweats that the occurrence of each sweat could be seen to increase very markedly his debility and asthenia. So severe was the effect of these sweats that I could always tell on entering the ward whether he had one the night before, and on one or two occasions I was shocked to notice what terrible changes had taken place during the past twenty-four hours. All the anti-sudorific remedies which I could think of were employed, without any avail, or with only a slight decrease in the quantity of the sweat. Finally, in despair, I turned to camphoric acid, and ordered that 20 grains of the drug should be administered stirred up in a little milk, or placed upon the tongue and washed down with water, one hour before the time at which the sweat generally came on, namely, at 1 o'clock in the morning. To make a long story short, I can only add that during the remaining four weeks the drug absolutely controlled all sweating, although it was only given once in every twenty-four or forty-eight hours—thereby greatly increasing the

patient's comfort and undoubtedly prolonging his life. It is also worthy of remark that this drug did not seem to decrease the other secretions, such as the saliva, or to cause the uncomfortable drying of the throat and feverishness of the skin so characteristic of full doses of belladonna.

The second case was that of a woman, aged twenty-five, suffering from pulmonary phthisis of a more chronic form than that of the case which I just detailed. In this case also the sweats were very annoying, producing insomnia and loss of strength; although they did not seem to be productive of as much debility as in the case of the man. In this instance, also, camphoric acid in the dose of 20 grains produced a most pleasing effect, completely controlling the sweating. I may also add that I have employed the drug in cases of nervous exhaustion and general debility accompanied with excessive sweating, with considerable success.—*Hare, Med. News*.

THE SHURLY-GIBBES TREATMENT OF PULMONARY TUBERCULOSIS.—For more than two years, Dr. Hen-
eage Gibbes, Professor of Pathology, Ann Arbor University, and Dr. E. L. Shurley, Professor of Laryngology, Detroit Medical College, have been experimenting upon guinea-pigs and monkeys, inspired by the hope of discovering a cure for consumption; and at last they believe that their efforts have been crowned with a reasonable measure of success. Having demonstrated to their satisfaction that tuberculosis could be transmitted by inoculation, they directed their attention toward the arrest of the disease in the inoculated animals. Of the many drugs used by inhalation, chlorine gas produced the best effects. They found that tubercular sputum, thoroughly saturated with chlorine gas, or mixed with fresh chlorine water, soon became innocuous. Air saturated by a spray of chloride of sodium can be inhaled readily, permitting the patient to inhale large quantities of chlorine with impunity. In addition, the investigators have employed solution of iodine and of chloride of gold and sodium, both chemically pure, in hypodermic injections. The results were very remarkable:

1. Guinea-pigs or monkeys which have acquired phthisis without inoculation, or animals inoculated with the sputum of tuberculosis, can have the disease arrested and a cure accomplished by hypodermic injections of either solution of iodine or solution of chloride of gold and sodium.

2. Guinea-pigs or monkeys well iodinated will not take tuberculosis by inoculation.

3. The same animals, saturated in like manner with solution of chloride of gold and sodium, will not take tuberculosis by inoculation.

4. Guinea-pigs and monkeys cannot be inoculated with tuberculosis from the sputa of patients suffering from tuberculosis, when said patients are well under the systematic influence either of the iodine or gold solutions.

Transferring their studies to human patients, they employed daily injections of about 10 minims of solution of iodine, the amount of iodine in the solution varying from $\frac{1}{12}$ to $\frac{1}{8}$ of a grain; or solution of chloride of gold and sodium, dose, $\frac{1}{16}$ to $\frac{1}{8}$ of a grain. The injections are made with the patient standing upright, the point chosen being the upper gluteal region. In addition, daily inhalations of chlorine gas were given in a small room especially prepared for the purpose. The temperature of the room was kept at about 75° F. A spray bottle was filled with a 10 per cent. solution of chloride of sodium. This was driven into the finest spray by compressed air under

—Brown, *Canadian Practitioner*, March 16, '91.

—*Brit. Med. Jour.*

—Bulkley, *Med. Record*.

TUBERCULOSIS IN CHILDREN.—Boltz, in an inaugural dissertation presented to the University of Kiel, gives statistics respecting the relative frequency of tuberculosis in children. Among 2,576 children whose bodies were examined after death, in Kiel, between 1873 and 1889, there were 424 or 16.4 per cent. cases of tubercle. The following figures show the percentage at different ages: Still-born children, 0.0; up to four weeks, 0.0; five to ten weeks, 0.9; three to five months, 8.6; six to twelve months, 18.3; one to two years, 26.8; two to three years, 33.0; three to four years, 29.6; four to five years, 31.8; five to ten years, 34.3; ten to fifteen years, 30.1.

PHTHISIS IN HIGH ALTITUDES IN ENGLAND.—The medical officer of health for Alston, noted as the highest market town in England, reports a death-rate of 13.9 per 1000 for the past year on the current census, but he believes that the new census will show a decrease in the population, which would, of course, show a corresponding increase in the death-rate. Influenza had caused two deaths, and he believes it had sown the seeds of consumption in many cases. The medical officer for Nenthead, in the same district, says that phthisis was far more prevalent than might have been expected, considering the high situation and the pure rarefied air. Something of this he also believed was due to consanguineous marriages. I may remark in reference to this that the large number of patients (comparatively for a sparsely populated district like that of Alston) presenting themselves at the institutions of Newcastle with defects and diseases of sight and hearing has often been noted.

MUCOUS POLYPI IN FRONTAL SINUS.—A shoeblack, aged eighteen years, applied at the Moorfields Eye Hospital on April 18, 1888, for a painful, tender swelling of the roof of the left orbit, attended with proptosis. No history of mechanical injury. The case was regarded as one of periostitis with suppuration. An incision was made into the swelling, some pus escaped, and the wound soon closed. The proptosis, however, remained. He continued under observation through the summer, and in October, the swelling having slowly increased, he was readmitted into the hospital, and the swelling was explored through a free incision. A large defect in the orbital roof was discovered, leading into the frontal sinus. Much viscid mucus escaped, and when the lips of the wound were separated with retractors a gelatinous polypus of the size of a grape was seen filling the opening in the bone. This and another were removed. A drainage-tube was inserted and the cavity syringed. Antiseptic precautions were observed, but the operation has followed by diffuse phlegmonous inflammation and pyæmia, from which he slowly recovered, and went to a convalescent hospital. In October, 1889, although a free passage into the nose from the sinus existed, and an examination of the sinus made it nearly certain that no polypi were present in it, the free secretion of viscid mucus still persisted, necessitating the continued employment of syringing and tube. The further history of the case is not known.

—Hulke, *The Lancet*.

APHORISMS IN MEDICAL EMERGENCIES.—*Accidents in Giving Anæsthetics.*—Tincture of digitalis hypodermically; draw out the tongue, and see that respiration is not mechanically impeded; invert the patient quickly and temporarily; use forced respiration promptly; apply external warmth and stimulation to the surface; avoid the exhibition of alcohol.

Angina Pectoris.—Inhalation of chloroform, or of a few drops of nitrite of amyl; $\frac{1}{100}$ gr. of nitro-glycerine, internally; placing the feet in hot water; mustard to the pectorial region; dry cup between the shoulders; hypodermic injections of morphine and atropine; administration of stimulants and anodynes.

Apoplexy.—Elevate head and shoulders; if pulse is moderately strong and the brain congested, bleed from the arm freely, sixteen ounces or more; elaterine (gr. $\frac{1}{6}$) or croton oil, two drops in a drachm of sweet oil or glycerine; cold to the head by means of an ice-bag.

Asphyxia.—In drowning, hold the patient's head downward for a few seconds. In hanging or choking, bleed from the jugular. If there is obstruction to passage of air through mouth or nose, open trachea. Artificial respiration at once, and to be continued. Friction, warmth, warm bath (100°), ammonia to nostrils, galvanizing of phrenic nerve.

Asthma, Spasmodic.—Hypodermic injection of atropine into the nape of neck; inhalation of smoke of stramonium leaves; fluid extract of nux vomica, internally; alcohol, ether, chloral, opium; inhalation of chloroform cautiously administered.

Colic, Gall.—Morphine hypodermically; inhalations of chloroform; hot application to the abdomen.

Coma.—Dark room, head high and cool; head shaved; low diet; croton oil; if due to compression, antiseptic trephining; if due to uræmia, pilocarpine and hot baths.

Heat-stroke.—Remove clothing, sprinkle with water, cold cloths to head, hot cloths to feet; antipyrine; bleeding in robust subjects. After temperature is reduced give alcohol and diffusible stimulants, hypodermically if necessary.

Pulmonary Hemorrhage.—If severe, raise the thorax, administer opiate; gallic acid fifteen grains every fifteen minutes; ergotin five to ten grains hypodermically two or three times daily; ice-bags to the chest; as a last resort a ligature may be thrown around the larger limbs. (Tyson.)

Hemorrhage from Stomach or Bowels.—Tannic acid ten to fifteen grains if due to capillary oozing. If from typhoid fever or ulcer of the stomach, treat as for pulmonary hemorrhage.

Hiccough.—Acid drinks, cold douches, ether or chloroform internally, externally, or by inhalation, musk, opium, antispasmodics.

Hysteria.—Inhalations of ether or chloroform for the spasms. If this is contra-indicated, give monobromide of camphor, musk, valerian, assafoetida, the bromides. In convulsive seizures, morphine and atropine hypodermically.

Shock.—Warmth; hot water bottle to feet, flanks and epigastrium; warm effusion to head; horizontal position; frictions, stimulants, brandy, ammonia, galvanism to precordia.

Strangury.—Vesical, hypodermic injection of morphine, to be followed by other remedies; rectal enemas of starch water and laudanum, followed by a hot sitz bath.

—E. J. Kempf, M.D., in *Am. Pract. and News*.

In the Chamber of Deputies on March 17, M. Deroulède introduced a measure excluding foreign dentists from France. "I demand," he said, "that Frenchmen's teeth shall be extracted by Frenchmen." The French deputies, however, did not desire that privilege, and rejected the ex-Boulangist's proposal without a division.

Medical News and Miscellany.

SIGN OF MEDIASTINAL "GROWTHS."

An anxious look, and sometimes swollen features
And hurried pulse and breathing plague the creatures.
A sternal prominence, and heart displaced,
One-sided dullness by lung-note effaced
(Or, to explain more clearly what's intended,
Percussion dullness to one side's extended,
And meeting pulmonary note—is ended).
Aortic impulse gives a throbbing local,
And o'er the growth there's fremitus and vocal
Resonance increased; and there's systolic
Murmur, threat'ning results more "diabolic."
There's bronchial breathing, and a strident rhonchus
When air is passing *in* or *out* a bronchus.
An impaired movement of thoracic wall,
And feeble breath sound, or no sound at all
O'er one particular lobe of single lung,
The "Reason Why" should not be left unsung,
And this I will explain without digression
The tumor blocks a bronchus by compression.
And mind! where'er the lung is much affected
Some signs appear, which should not be neglected,
Resembling strongly pleuritic effusion,
Whose *actual presence* may be no illusion.

—*Hosp. Gazette.*

IN Missouri the Examiner's bill failed in the Senate after having passed the House.

DR. CHAUNCEY S. BURR has been appointed surgeon of the Panhandle, at Anderson, Ind.

DURING 1890 the mortality in St. Louis was 18.45 per 1,000; for February, 1891, it was 17.73.

A PHILADELPHIA lady has left her physician, Dr. John V. Shoemaker, a legacy of ten thousand dollars.

THE Countess Wanda von Szcawinska has just been admitted to the degree of Doctor of Medicine of the University of Geneva.

THE Children's Hospital of St. Louis, during 1890 treated 172 cases in the wards, and 838 in the dispensary, at a cost of \$4,953.75.

THERE is a bill before the Ohio Legislature to compel all the railroads of the State to carry doctors on freight trains. Why not compel them to carry the undertakers also?

A SYSTEM of electric cabs has been introduced in Stuttgart, and with such success that the cab-horse is likely to be relegated to other fields of usefulness. But he won't object.

THE Atlanta Medical College graduated a class of eighty on March 2, and two days later the Southern Medical College sent out into the world thirty-six young Doctors of Medicine.

AN official notice has been issued by the British Foreign Office to the effect that the epidemic of typhoid fever at Florence is now at an end, and that the condition of water supply is occupying the urgent attention of the local authorities.

THE Photographic Society of Great Britain has arranged to hold an exhibition of collotype printing on April 14. In this process, as is perhaps generally known, photography plays the part of the lithographic artist, and a sensitive gelatine film that of the lithographic stone. It presents certain advantages for the reproduction of scientific drawings and photographs.

WE are short of TIMES AND REGISTER for January 24 and February 21. We will send a dermatograph or a copy of Rohrer's Chart of Ear Diseases in exchange for a copy of either.

THE prospects of medical legislation at Harrisburg are not very good. The Legislature manifests an unwillingness to pass any bill that does not meet with the approval of all the schools of medical practice, and no such bill has as yet been reported.

WE have undoubtedly before us the ordeal of another visitation of influenza. This time it comes from west to east, although the spread is neither rapid nor uniform. At the same time there are reports of its reappearance in various parts of the Old World.

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.—The meetings of the Congress of American Physicians and Surgeons will be held in Washington from 3 to 6 P.M., September 22, 23, 24 and 25, 1891.

WILLIAM PEPPER,

Chairman of the Executive Committee.

A PESSIMISTIC writer in the *Provincial Medical Journal* thus outlines the career of "Kochism:"

1. *Eureka!*
2. *Vici.*
3. *Ave, morituri te salutant.*
4. *De mortuis nil nisi bonum.*

Epitaph, *Fuit.*

WE are glad to know that Dr. Love, the accomplished editor of the *Mirror*, is rapidly recovering from his severe illness. Although suffering acute pain he managed to get the *Mirror* out on time, which is another evidence of unusual journalistic energy and devotion. What would the world be without love?—*St. Louis Clinique.*

A GOOD ONE ON THE BELLY-RIPPERS.—One of our practical country practitioners from one of the upper counties in this State was recently on a visit to New York, and, among the other wonders of Gotham, took in the Polyclinic. It was one of Wylie's field days, who, at the conclusion of a brilliant clinic, asked Dr. F. "what he thought of medical matters in the metropolis." Dr. F. replied: "Well, I would rather be a moonshiner down in Tennessee than a uterus up here in the hands of you New York doctors."—*Southern Pract.*

THE managers of the Seaside House for Invalid Women desire to invite the attention of clergymen and physicians to the advantages offered to poor sick women by the Mercer Memorial House at Atlantic City. In it a comfortably furnished private room, with board, nursing, medical treatment and medicines, can be had for four dollars per week, or about one-half the actual cost. Circulars can be had by writing for them to the Mercer Memorial House, Ohio and Pacific avenues, Atlantic City, N. J. No one is ever admitted without previous application.

"ORIGINAL Research in Relation to Animal Economics," a study by Frank S. Billings, M.D., is the title of an exceedingly interesting little pamphlet, reproducing an address by the author before the Missouri Valley Medical Association, Louisville, Ky., and also before the Chicago Academy of Medicine. It is published by the American Medical Press Co., limited, Philadelphia, but at what price we are unable to say. The work is a study, not for the student only, but for every farmer, breeder and citizen, and will doubtless have a very wide distribution.

—*Colman's Rural World.*

MEDICAL PRACTITIONERS IN RUSSIA.—In July, 1890, the number of medical practitioners in Russia was 12,812, of whom 12,112 were men, and 700 women. The number of surgeons in the military and naval medical services was 2,629. The proportion of doctors to population in the Russian Empire is about 8 to 100,000. The total number of persons who received licenses to practice medicine from the various medical faculties of the Russian Empire during 1890 was 775. Of these 90 obtained the degree of Doctor of Medicine, and 685 the diploma of "Medical Practitioner."

THE Missouri House has passed a bill requiring medical students to take a three years' course before graduating; to undergo a preliminary examination before matriculating, unless he presents a teacher's certificate, etc.; the regular course to include pathology, hygiene and jurisprudence, besides the immortal seven; the terms to be at least six months; regular attendances, bi-weekly quizzes; two courses of dissection, and two terms hospital and clinical instruction. Colleges must show the possession of facilities for teaching. No penalty is provided for neglect to enforce.—*Weekly Med. Review.*

AN ABNORMAL DEATH RATE.—For the first three days of this week the returns to the office of the registrar of vital statistics show a death list of 490. Yesterday's mortality was 165 and Monday's 194. Last month's mortuary record is 3,249, whereof more than 1,000 deaths were attributable to grip, or to chest diseases directly attributable to that prevalent malady. Dr. Wickersham insists that in justice to Chicago it should be remembered that "filth diseases," fevers and the like, are abnormally few, and only diseases due to unavoidable climatic changes are responsible for the great mortality.

—*Chicago News, Apr. 1.*

At the Philadelphia County Medical Society, April 8, the following papers were read:

Surgical Scarlatina, Complicating a Trephining Operation, followed by Cases of Simple Scarlatina, by Dr. James Hendrie Lloyd; discussed by Drs. Willard, Deaver, Stelwagon, Curtin, J. C. Wilson, and E. P. Davis.

Interesting Cases of Abdominal Surgery, by Dr. M. Price.

Abdominal Surgery at the Kensington Hospital for Women, by Dr. Chas. P. Noble.

Albuminuria of Pregnancy, two cases, by Dr. A. J. Downes.

A VERY pleasant little excursion was made week before last to Winslow Inn, at Winslow Junction, New Jersey. The party consisted of Drs. W. M. Welch, Philip Leidy, Wm. B. Atkinson, and A. G. Reed, with their wives; H. St. Clair Ash and W. F. Waugh. The Inn has just been opened for guests. It is situated in the New Jersey pine belt, and offers all the advantages of that locality. The Inn is newly erected, and has twenty-four bed-rooms, wide sun-parlors, artesian and cedar water; the best heating arrangements, including steam coils and open wood grates in each room; a billiard-room, smoking-room, and all the usual appliances for the comfort of guests, invalid or otherwise. Judging by the experience of the party, the cuisine is in fully competent hands.

Situated within thirty miles of Philadelphia, this should be a very desirable resort for those who need rest and quiet, with the pure air of the pine woods, within a few minutes ride of the city.

WEEKLY Report of Interments in Philadelphia, from March 28 to April 4, 1891:

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Abscess	2	2		Hemorrhage	1	1	
Anæmia	1	1		Inanition	1	5	
Alcoholism	3	3		Influenza	3	1	
Apoplexy	16			Inflammation bladder	2		
Asphyxia	1	1		" brain	4	9	
Asthma	1	1		" bronchi	3	13	
Bright's disease	12			" kidneys	5	5	
Burns and scalds	1	1		" larynx	1	1	
Cancer	10			" lungs	30	19	
Casualties	5	1		" pericardium	3		
Concussion of the brain	1	7		" peritoneum	2	2	
" lungs	5	2		" pleura	2		
" liver	1	1		" s. & bowels	4	6	
Cholera infantum	2	2		" uterus	1		
Cirrhosis of the liver	4			Insanity	2		
Concussion of the brain	1	1		Jaundice	1	1	
Consumption of the lungs	41	2		Locomotor ataxia	1		
" throat	1			Leucocythemia	1		
Convulsions	18			Marasmus	1	13	
Croup	7			Necrosis of vertebra	1		
Cyanosis	4			Obstruction of the bowels	3	1	
Debility	3	2		Old age	14		
Diabetes	1			Paralysis	11		
Diarrhœa	1			Purpura hemorrhagica	1	1	
Diphtheria	16			Pyæmia	1		
Disease of the heart	16	4		Rickets	1	1	
" liver	2			Septicæmia	1		
Dyspepsia	1	1		Sore mouth	1	1	
Dropsy of the brain	3	3		Softening of the brain	3		
Dysentery	3			Suffocation	1	1	
Effusion of the brain	1			Suicide	1		
Embolism, cerebral	1			Syphilis	1		
Epilepsy	1	1		Teething	4		
Enlargement of the heart	4	1		Tetanus	1	1	
Fatty degeneration of the heart	1			Trismus neonatorum	1	1	
Fever, malarial	1			Tumor of the brain	2		
" puerperal	1			Ulceration of the stomach	2		
" scarlet	1			Uræmia	2	2	
" typhoid	28	15		Whooping cough	2		
Gall stone	1			Total	276	184	
Gangrene	1						
" of the leg	1						

THE formal opening of the Polyclinic's new building took place Thursday, April 2, 1891. The ceremonies embraced the unveiling of the tablet of the perpetual endowment fund of the Polyclinic Medical Society, by Thomas J. Mays, M.D., President of the Faculty; prayer, by Rev. I. L. Nicholson; formal transfer of building to the trustees, by Thomas S. K. Morton, M.D., chairman of the building committee; acceptance on behalf of trustees, Hon. Wm. N. Ashman; greetings from the University of Pennsylvania, J. William White, M.D.; the Jefferson Medical College, Theophilus Parvin, M.D.; the Medico-Chirurgical College, E. E. Montgomery, M.D.; the Women's Medical College, Frances Emily White, M.D. The Alice Fisher Memorial Ward was inaugurated by Mrs. E. D. Gillespie in an eloquent address, eulogizing the women who did such noble work for the Philadelphia Hospital. The building was formally declared open as a charitable and educational institution by Lieutenant-Governor of Pennsylvania, Louis A. Watres, and benediction pronounced by Rev. Wm. H. Furness. A large number of the audience then inspected the building. The hospital will accommodate about 50 beds. Among those present were Drs. Roberts, Solis-Cohen, Wilson, Risley, Mills, Mays, etc., of the Polyclinic faculty; E. P. Davis, editor of the *American Journal of the Medical Sciences*; Clara Marshall, Mr. Blakiston, etc., etc.

A CURIOUS accident occurred at Judson, (Ark.) about a week ago. A physician, who was wearing a pair of celluloid cuffs, undertook to stir up the fire in his room, when the cuff suddenly took fire and burned with great fierceness. In using the second hand to extinguish the flame, the other cuff caught, and both burned like tar or turpentine. A nephew, who was present, extinguished the fire by wrapping his coat firmly about both arms, but not until the skin of both wrists and hands were terribly burned.

A BACILLIAN REMONSTRANCE.

I AM only a minute bacillus, but I have some rights I maintain;
 You doctors have long tried to kill us, but till now you have labored in vain.
 Your savants must sagely declare that only the fittest survive;
 Then why do you exercise care to keep your diseased ones alive?
 Cold science should scorn all affection. Why breed from a class so effete?
 The law known as natural selection should make your consumptives our meat.
 We were the first settlers, I claim, and for ages have fed on your frames,
 Till the man with a microscope came and began war by calling us names.
 Our fathers were kept by your dads, and they fed them on whiskey and oils;
 Antiseptics and germicide fads were not given to add to their toils.
 A few years ago from far France came a stinking cyclone with a swoop,
 Which caused the bacillus to dance like an old-fashioned ship with a poop.
 And now in a new-fangled way a German our good work would stop;
 He will struggle or drown us, they say, with lymph worth two dollars a drop.
 Till that man with a microscope came we wanted not victuals and drink;
 Now this struggle to cut off the same is very small business, I think.—*Mike Robe.*

THE Medico-Legal Society of New York held its April meeting at Hotel Buckingham, April 8. A paper was read by Dr. Wm. W. Ireland, of Scotland, entitled: Is Criminal Anthropology a Science?

Discussion followed on the paper of Mr. Albert Bache, entitled: Lunatics Real and Feigned.

The meetings are open to all persons interested in the science. Contributions to the library are solicited. Members desiring copies Medical Jurisprudence of Intebriety, or series No. 1 Medico-Legal Papers, or wishing to enroll in the International Congress and receive the Bulletin, please notify the President. Subscribers to the groups of portraits at \$1.00, each size suitable for framing, will receive them if remittance is made. The new volume, Prize Essays, will be ready shortly; members desiring copies, please notify President or Secretary.

FRANKLIN R. HAINES, *Ass't Sec'y.*

FRAU GELLY.—This wonderful woman has, for something like a score of years, taught on her own person the wonders of laryngoscopy. She allows her vocal cords to be painted with brushes; submits herself to intubation, also to the extraction of beads, bones, and other foreign bodies which she allows to fall into her larynx, the sinus pyriformis, etc., so that skill is acquired in these delicate operations. Also posterior rhinoscopy, and passing of catheters into the eustachian tubes can be learnt with and on her.

For all these operations, to which she will submit in the course of a lesson, she receives the sum of a florin (about 2s.), and will go from the rooms of one student into those of another. It may confidently be asserted that this extraordinary woman has done more good in this world by the practical teaching of several generations of medical men than the writers of many books put together. A man who has never used the laryngoscope, will learn from her in a short time what he could not learn elsewhere, and knowing his way he can at once profit by joining one of the many courses. This same Frau Gelly lent herself during the last congress at Berlin, her stomach being illuminated with an electric apparatus. Prof. Oser, in a private course on the modern treatment of stomach

complaints has also employed her to demonstrate lavage, etc. She has also shown her bladder with the electric *endoscope*.—*Med. Press.*

HEALTH OF NEW YORK STATE.—The reported mortality for February is very nearly the same as that of February, 1890, and about 1,200 greater than the average during this month for the past six years. There were 310 deaths per day, in January 308; the increase is in the Western districts of the State. The proportion of deaths from zymotic diseases is a little larger than that of January, being as 43 to 41 per day. The increase, which is moderate, is in scarlet fever and diarrhoeal diseases. There has been reported from numerous localities throughout the State the prevalence during both February and January of winter diarrhoea, the mortality from it not being great, however. Of the 127 deaths from typhoid fever, 52 were reported from the Hudson Valley district, nearly all of them having occurred in Albany, Cohoes, Schenectady and West Troy, in the two former there being a large increase, the endemic having abated in the latter. The mortality from diphtheria continues to decrease. From acute respiratory diseases there was an increase from 57 per day in January to 60; the reports of six years show an usual increase from January through March; it is now in part due to the moderate prevalence in mild form during the month of epidemic influenza, which is reported as the cause of death from numerous localities; bulletins from Western States have shown its considerably earlier and more fatal prevalence. The deaths from consumption have not increased (as was the case a year ago) but rather have diminished. In the other groups of local diseases there is little variation. Mortality reports from 137 cities and large towns, having a total population of 4,300,000, give a death rate of 21.25 per 1,000 annually.

PANCREOBILIN.—“In this direction, however, we have another ‘new remedy’ which has gradually engrafted itself into my good graces, which is becoming more and more permanent the longer I use it. This is what is known as ‘pancrobilin’ and it is a combination of pancreatin and bile, and placed upon the market in form of a liquid and a pill, of which two I consider the latter more preferable.

“In cases where there is a diminished quantity, or even an absence, of these natural products, especially the bile, resulting in the distressing complication of intestinal or duodenal indigestion, I have found this preparation of decided value by assisting the intestinal digestion until the normal functions of the liver and pancreas, but especially the former, could be established.

“In constipation attended with flatulence, the result of an inactive liver, I have found this remedy of great value, promptly relieving the flatulence, and producing natural colored stools of a normal consistency, in place of the pale ash-colored fæces, or the dry, hard scybala, of the chronic dyspeptic.

“After a careful trial of some three years in a variety of cases affected with constipation resulting from congestion of the liver, and in cases in which there is an atonic condition of the coats of the bowels resulting in intestinal indigestion, I am frank to say that I know of no two remedies that will give as prompt relief to these conditions as the ones under consideration.

“In the one class of cases the pancrobilin supplies the intestine with an artificial supply of bile and pancreatin, which digests the food that otherwise would not be digested, thus giving relief until the real difficulty with the liver can be overcome. In the other class of cases the cascara sagrada tones up the intestine, increases the secretions, which in turn facilitate digestion, and relieves the constipation.”—Harvey Reed, in *American Lancet*.

THE INCONSISTENT DOCTOR.—“See here, doctor, you told me to avoid any sudden excitement.”

“So I did; it’s likely to be fatal to you.”

“Then why, sir, did you send your bill to me yesterday?”

HOW HE WON HIS SPURS.

(A TALE OF THE NEAR FUTURE.)

He was but a young M.D., sir,
But his views were very free, sir,
And the use of the old-time methods, he could never, never
see, sir.

None could write prescriptions faster,
From eye water to corn plaster,
And he drove a beast so fast that not an animal went past her.
He was called in consultation,
By a strange concatenation
Of events which brought him forward to old Dosem's con-
sternation.

'Twas a case of amputation ;
With professional elation,
He said : "'Twill give me pleasure to perform this operation."
Though a frown the rest were wearing,
Yet they stood stock still and staring,
At this cheeky young physician's supreme confidence and
daring.
For these M.D's., full of learning,
Had tried dosing, splints and burning,
When every one within his heart for surgeon's knives was
yearning.

With battery electric,
And some movements quite eccentric
(He bossed the job by very force of push most monumentric),
He had the leg off quickly,
While old D—protested thickly.
"I really feel that this partakes of quackery, Dr. Trickleigh."
Then uprose young M.D's. dander,
And he shouted : "You old gander !
You kill patients and save time, but I kill"—
his voice grew bolder.

"Now kill these nerves, you know, sir,
And fit this electrode so, sir,
And the man's in touch with all electro-nature that can grow sir,
Now by laws of the profession,
This young M.D's., base transgression
Of etiquette should have resulted in his retrogression ;
But so strange are human creatures,
That he's now one of the features
In the College of Physicians,—chief of electric teachers.
—*Pharmaceutical Era.*

PLACENTA PRÆVIA.—In a case of Placenta Prævia, with
terrific flooding, when the Fluid Extract of Ergot could not be
retained on the stomach, "Ergotole"—a most concentrated
and efficient preparation of Ergot, manufactured by Sharp &
Dohme of Baltimore, Md.—was used with the greatest satisfac-
tion, and I am particularly pleased with it. I administered
ten minims hypodermically, and it acted magically. I think
that the profession should be made acquainted with its valua-
ble properties, as I consider it the duty of every physician to
do all in his power to make known a remedy which he has
seen save human lives, as the "Ergotole" certainly did in
this frightful case of flooding. I have used it in other cases
when the fluid extract could not be retained by the stomach,
and I regard it as a most valuable addition to the science of
Therapeutics.

I think no physician should be without "Ergotole," it is
the most satisfactory preparation I have ever used in a prac-
tice of more than forty-two years.

WM. E. WYSHAM, M.D.,
Catonsville, Baltimore Co., Md.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be
contributed to this journal alone, to insure their acceptance ; each article
must be accompanied by a note stating the conditions under which the
author desires its insertion, and whether he wishes any reprints of the
same.

Letters and communications, whether intended for publication or not,
must contain the writer's name and address, not necessarily for publica-
tion, however. Letters asking for information will be answered privately
or through the columns of the journal, according to their nature and the
wish of the writers.

The secretaries of the various medical societies will confer a favor by
sending us the dates of meetings, orders of exercises, and other matters
of special interest connected therewith. Notifications, news, clippings,
and marked newspaper items, relating to medical matters, personal, sci-
entific, or public, will be thankfully received and published as space
allows.

Address all communications to 1725 Arch Street.

ARMY, NAVY AND MARINE HOSPITAL SERVICE.

*Official List of Changes in the Stations and Duties of Officers
serving in the Medical Department, U. S. Army, from
March 22, to April 4, 1891.*

War Department, Washington, D. C., April 1, 1891. By di-
rection of the President the following named officers are de-
tailed for duty under the Intercontinental Railway Commis-
sion, appointed under a provision in the Act of Congress,
approved July 14, 1890, for the purpose of making "a prelimi-
nary survey for information in respect of a continental rail-
way, recommended by the International American Confer-
ence," and they will report in person to the Commission in
this city accordingly : Captain Edgar L. Steever, Third Cav-
alry ; First Lieutenant Stephen M. Foote, Fourth Artillery ;
First Lieutenant Lyman W. V. Kennon, Sixth Cavalry ; First
Lieutenant Andrew S. Rowan, Ninth Infantry ; Second Lieut-
enant Samuel Reber, Fourth Cavalry ; Second Lieutenant
Charles A. Hedekin, Third Cavalry ; Captain William C.
Shannon, Assistant-Surgeon U. S. Army, for duty as medical
officer of the party to which he may be attached. Par. 9, S.
O. 73, Headquarters of the Army, A. G. O., Washington, D. C.,
April 1, 1891.

Major David L. Huntington, Surgeon, on being relieved by
Captain Henry G. Burton, Assistant-Surgeon, from duty at
San Diego Barracks, Cal., will report in person to the com-
manding officer at St. Francis Barracks, St. Augustine, Flori-
da, for duty at that post, reporting by letter to the command-
ing general, Division of the Atlantic. Par. 5, S. O. 71, Head-
quarters of the Army, A. G. O., March 30, 1891.

Captain Henry G. Bunton, Assistant-Surgeon, now at San
Diego, Cal., on sick leave of absence, is relieved from further
duty at Vancouver Barracks, Washington, and will report in
person to the commanding officer San Diego Barracks, Cali-
fornia, for duty at that post, relieving Major David L. Hun-
tington, Surgeon, and reporting by letter to the commanding
general, Department of Arizona. Par. 5, S. O. 71, Headquar-
ters of the Army, A. G. O., March 30, 1891.

By direction of the acting Secretary of War, Major Joseph
B. Girard, Surgeon, is relieved from duty at Fort Lowell, Ari-
zona, to take effect upon the withdrawal of the troops from
that post, and will report in person to the commanding officer
Alcatraz Island, California, for duty at that station, reporting
by letter to the commanding general, Department of Cali-
fornia. Par. 5, S. O. 70, Headquarters of the Army, A. G. O.,
Washington, March 28, 1891.

By direction of the acting Secretary of War, First Lieuten-
ant Eugene L. Swift, Assistant-Surgeon, now on duty at Fort
Thomas, Arizona, will report by letter to the commanding
officer, Fort Grant, Arizona, for duty at that station, or at
Fort Thomas, Arizona, as the commanding officer may di-
rect. Par. 7, S. O. 66, A. G. O., Washington, D. C., March
24, 1891.

RETIREMENT.

By direction of the acting Secretary of War, the retirement
from active service this date, by operation of law, of Captain
Henry Johnson, Medical Storekeeper, under the provisions
of the act of Congress approved June 30, 1882, is announced.
Par. 5, S. O. 66, Headquarters of the Army, A. G. O., Wash-
ington, March 24, 1891.

*Changes in the Medical Corps of the U. S. Navy for the week
ending April 4, 1891.*

STEPHENSON, F. B., Surgeon. Ordered to the U. S. S.
"Marion."

BERRYHILL, T. B., Passed Assistant-Surgeon. Ordered to
the U. S. S. "Marion."

WHITE, C. H., Medical Inspector. Ordered to the U. S. S.
"Baltimore."

CLARK, J. H., Medical Inspector. Ordered to the U. S. S.
"San Francisco."

HOEHLING, A. A., Medical Inspector. Detached from
President of Naval Examining Board.

PROMOTIONS.

CRANDALL, RAUD P., Assistant-Surgeon. Promoted to
Passed Assistant-Surgeon, February, 27, 1891.

APPOINTMENT.

BROWNELL, CARL DEWOLF, of Bristol, R. I., commissioned
an Assistant-Surgeon in the Navy, April 1, 1891.

The Times and Register.

Vol. XXII, No. 16. NEW YORK AND PHILADELPHIA, APRIL 18, 1891. Whole No. 658.

PAGE		PAGE	PAGE
ADDRESS.		Antipyretic Uses of Antipyrine and Qui-	
THE PROGRESS OF MODERN SURGERY IN		nine. <i>Rex</i> - - - - -	334
TWENTY-FIVE YEARS. By Wm. G. Por-		The Use of the Forceps. <i>Parvin</i> - - - - -	334
ter, M.D. - - - - -	317	Scirrhus of the Breast. <i>Keen</i> - - - - -	334
ORIGINAL ARTICLES.		Paralysis Agitans. <i>Bartholow</i> - - - - -	334
THE SURGICAL ANTISEPTICS. By Benjamin		Coryza in a Child. <i>Rex</i> - - - - -	334
T. Shinwell, M.D. - - - - -	323	Prescription for Drunkards After a De-	
THE POLYCLINIC.		bauch. <i>Brinton</i> - - - - -	334
JEFFERSON MEDICAL COLLEGE HOSPITAL:		Diagnosis Between Concussion and Com-	
Washing Out the Bladder. <i>Brinton</i> - - - - -	333	pression of the Brain. <i>Brinton</i> - - - - -	334
Parenchymatous Metritis. <i>Parvin</i> - - - - -	333	Tonsillitis. <i>Longstreth</i> - - - - -	334
For Seborrhoea. <i>Cantrell</i> - - - - -	333	Mercury in Syphilis. <i>Keen</i> - - - - -	334
For the Removal of Nasal Polypi. <i>Cohen</i> 333		Meningocele. <i>Keen</i> - - - - -	334
Sprains. <i>Brinton</i> - - - - -	333	Chorea. <i>Rex</i> - - - - -	334
Rheumatoid Arthritis. <i>Wirgman</i> - - - - -	334	Obscure Diagnosis. <i>Keen</i> - - - - -	334
		For a Severe Case of Burn Involving Both	
		Hands. <i>Taylor</i> - - - - -	334
		EDITORIALS.	
		THE REJECTED CANDIDATE - - - - -	335
		THERAPEUTIC PRINCIPLES - - - - -	335
		PROSTITUTION IN JAPAN - - - - -	335
		THE MEDICAL DIGEST.	
		Analysis of the Frequency of Symptoms	
		Occurring in Fifty Cases of German	
		Measles. <i>Digby</i> - - - - -	336
		Treatment of Lead Poisoning. <i>Oliver</i> - - - - -	336
		The Pyrexia of Phthisis. <i>Williams</i> - - - - -	337
		Ptomaines. <i>Prov. Med. Jour.</i> - - - - -	337
		MEDICAL NEWS AND MISCELLANY, 337	
		ARMY, NAVY, AND MARINE HOSPITAL	
		SERVICE - - - - -	338
		NOTES AND ITEMS - - - - -	iv, xli

Address.

THE PROGRESS OF MODERN SURGERY IN TWENTY-FIVE YEARS.

By WM. G. PORTER, M.D.,

Senior Surgeon to the Philadelphia Hospital, Surgeon to the Presbyterian Hospital, Consulting Physician to the Philadelphia Dispensary, Fellow of the College of Physicians, Fellow of the Academy of Surgery, Fellow of the American Surgical Association, etc., etc.

MR. PRESIDENT and Fellows of the Academy of Surgery: A little more than twenty-five years ago I began the study of medicine in the University of Pennsylvania. To-night, by the kind partiality of our distinguished President, I have been selected from many much more worthy of the honor to deliver the annual oration before you. In casting about me for a subject worthy of your consideration, it has occurred to me that I could not do better than present you a bird's-eye view of the more noteworthy advances which have been made in surgery during that time. To investigate them fully and at length would occupy almost as much time as they have required for their development. The first surgical clinic which I ever attended was in the present amphitheatre of the Philadelphia Hospital. The lecturer was the present foremost living American surgeon, our worthy president, Professor D. Hayes Agnew. In those days, at least in this city, the specialists were few in number, and in addition to the work to which they gave special attention they practised as general surgeons or even as general practitioners. The staff of Wills Eye Hospital, for instance, consisted of four gentlemen, not one of whom devoted his exclusive attention to diseases of the eye. To-day the staff consists of ten ophthalmic surgeons, who, with one exception, are eye specialists, or, at least, wander no farther from the eye than to the ear or throat. At that time any general surgeon would operate for cataract or strabismus or any of the ordinary operations on the eye or its appendages. To-day the general surgeon as a rule contents himself with

treating conjunctivitis or iritis, or, perhaps, the removal of foreign bodies from the eye or lids, and if anything more serious presents itself he refers it to his favored specialist. Twenty-five years ago how many specialists were there in gynecology, otology, laryngology, dermatology, genito-urinary and venereal diseases? As I recollect it, the gynecological clinic, so far as treatment was concerned, was about equally divided between the insertion of pessaries, the application of nitrate of silver, iodine, potassa cum calce or fuming nitric acid to the os or cervix, and the administration of astringent vaginal injections. To-day, every well organized hospital has, in addition to its medical, surgical and, perhaps, obstetrical staff, one or more of all the above specialists. In those days gynecology was practically in the hands of the obstetricians. To-day, so numerous have become the operations of the gynecologists that they constitute a distinct class by themselves, and, while eschewing general surgery, they have also divorced themselves from obstetrics. While specialism has thus advanced, the natural inference would be that the domain of the general surgeon was gradually but surely being contracted, but on the contrary, it has been enormously enlarged. The cavities of the cranium, of the thorax, of the abdomen, independent of the above specialties, have been explored and conquered to such an extent that it really seems as if we must now at least have reached the limit, but that is exactly what seemed to have been demonstrated twenty-five years ago. Twenty-five years from now the orator who addresses you will look back as I do now, and wonder how crude and barbarous our methods were as compared with modern science. And yet the record of twenty-five years is a noble one, and one of which we have no cause to be ashamed. Let me begin now to chronicle some of the advances and failures which have occurred during the twenty-five years last past.

In 1865, Mr. Joliffe Tufnell stated that out of ninety of the principal surgical hospitals of Great Britain and Ireland, in seven only was it the custom to immediately put up fractures by starch or other fixed material. With all the improvements which

have been made in the application of plaster of Paris to this purpose; after all that has been written on the subject; in spite of the many demonstrations which have been made of its utility, safety and comfort, it seems remarkable that this method has not made more converts, and probably to day the proportion of hospitals in which it is used has not increased since then. The discovery of the local anæsthetic effects of sulphuric ether, when used as a spray, by Dr. B. W. Richardson in 1866, was loudly heralded as a great advance in surgery. It seems now to have gone out of fashion, being but seldom used, although undoubtedly applicable to a wide range of minor surgical affections.

The treatment of cancerous tumors by the injection of acetic acid had but a short-lived notoriety, and is now no longer resorted to.

The immediate treatment of stricture of the urethra by rupture of the stricture by means of Holt's, Thompson's, and other dilators, caused a great sensation, and was extensively practised by many surgeons. The most extravagant claims were made for it. Mr. Holt himself considering that it must ultimately supersede all other modes of treatment. It was claimed that the stricture rarely returned even when after-treatment had been neglected, and after the lapse of years that the same instrument could be passed which was admissible at the time of the operation. Mr. Holt reported that he had operated in a single year on one hundred and fourteen cases without a single bad result of any kind whatever, and with only one complication, a small abscess of the penis, which arose in consequence of the density of the stricture breaking the directing rod of the instrument. "The cases embraced every variety, and occurred in private and hospital practice in patients sent to him from all parts of the kingdom and abroad." Here, then, was apparently the ideal operation for stricture—safe—speedy—radical. It certainly was very satisfactory, both to patient and surgeon, to have a stricture in a few seconds enlarged from the finest calibre to one that would carry a large-sized bougie, and to enable a patient who had been urinating only by drops to pass a full-sized stream, but the results obtained by other surgeons were not so successful. Experience demonstrated that strictures treated by this method would relapse as rapidly and as often as those treated by other methods. Accidents, such as hemorrhage, abscess, etc., resulted. Urethral fever and pyæmia were not uncommon. The method is still used, but by comparatively few surgeons, and its sphere of usefulness is certainly much more limited than its disciples maintained.

In *The British Medical Journal* of February 5, 1867, will be found an article by Joseph Lister, Esq., then Professor of Surgery in the University of Glasgow, on a new method of treating compound fractures, abscesses, etc. I cannot forbear giving a synopsis of it. "The reason that a compound fracture usually proves so much more dangerous to life, and serious in its results to the limb, is not the simple access of oxygen, but of the septic particles which always exist in the atmosphere. These act like yeast, producing decomposition in everything susceptible of it." "The truth of this has been proved by the philosophic researches of Mr. Pasteur. In a compound fracture twenty-four hours after the accident, the colored serum which oozes from the wound is already distinctly tainted with decomposition. This state of things is enough to account for all the bad consequences of the injury. By the application of carbolic acid to the wound this decomposition of the blood and other

effused fluids may be prevented. Carbolic acid forms with the blood a solid crust which prevents the access of these septic particles contained in the atmosphere, and retains for a long time its antiseptic properties. Having put up the limb comfortably, lay on the wound a piece of lint soaked in carbolic acid, and allow it to remain undisturbed. If looked at, at the end of several days, no signs of suppuration will be found. If any blush of redness occurs round the sore the lint may be removed, and the wound dressed with water having a small proportion of carbolic acid diffused in it. As carbolic acid is almost absolutely insoluble in water, but dissolves readily in the fixed oils or glycerine, these may, in some cases, prove very suitable applications. In some cases it is well not to remove the lint at all, but to cover it with a piece of very fine and thin block tin to prevent the evaporation of the volatile organic acid. A firm crust is formed by the blood, lint and carbolic acid beneath which no suppuration occurs."

How little then could even the writer of the paper have foreseen the mighty revolution in surgery and surgical methods of which this paper was the forerunner. Who would have believed that from the immortal principle proclaimed by Lister such wonderful results would have been attained. It is entirely unnecessary for me to trace the subsequent history of Listerism. You are all familiar with it. In the words of Mr. W. Watson Cheyne, "Listerism or asepticism is a great principle which has triumphantly withstood the most searching tests, and which is now a law of the first importance to the practical surgeon." The Listerian or aseptic method is the best means at present known of carrying out that law in surgical practice, but the means have always been improving and must continue to improve. The time may indeed come when the method shall have undergone an entire alteration, but nevertheless the principle underlying it will always remain the same. Whatever changes may occur in the present Listerian method, Listerism will always remain the most fundamental principle of wound treatment, and the surgeon when he makes a wound will Lister it in the fullest sense of that term. The same thing has occurred with all natural laws. When once discovered and firmly established they remain immutable, but the practical applications of these are constantly widening and improving.

Acupressure, first presented to the world by its inventor, Sir Jas. Y. Simpson, in December, 1859, in a communication to the Royal Medico-Chirurgical Society, of Edinburgh, in my earlier days was supposed by some of its advocates to be certain to entirely supplant the ligature as a means of arresting hemorrhage. Its inventor's own estimate of it shortly before his death was that, "Acupressure will one day do more for my fame than even the discovery of chloroform." In 1867 it was stated in articles by Sir James Y. Simpson and Dr. Pirrié that "upwards of eight hundred vessels have now been stopped by acupressure by the surgeons to the Aberdeen Infirmary. These have been in all kinds of serious operations, and yet in only two of them has there been any hemorrhage on removal of the needle; one of these was after removal of the leg in its upper third for medullary cancer; the second was the radial artery, hemorrhage from which was arrested at once by replacing the needle. This is quite conclusive as to acupressure being a perfectly reliable means of arresting hemorrhage. Dr. Pirrié says: "I am perfectly convinced that acupressure accelerates the healing of wounds, and that under its use, aided by

metallic sutures, the avoidance of all dressings and perfect rest of the wounded part, in many instances the largest wounds, after major operation, will heal up without the formation of a single drop of pus." Add to these recommendations that accupressure is the easiest of performance, and the quickest of all the methods of arresting hemorrhage, and that the risk from pyæmia is diminished very greatly (no case having yet occurred), and impartial men will allow that the use of the ligature should be superseded almost entirely by that of the needle.

Mr. Bryant remarked at a meeting of the Royal Medical and Chirurgical Society in 1881, "That accupressure has been almost abandoned, because in the case of several arteries it was frequently followed by secondary hemorrhage, the vessel not being occluded long enough to allow of permanent clotting. The International Cyclopædia of Surgery, in the article on Injuries of Blood-vessels, says: 'Professor Esmarch makes no mention whatever of accupressure in his Surgeons' Hand-Book,' and I think he is quite right, because, though historically of importance, it is not of much practical value as a hæmostatic measure."

Certainly, except as a temporary expedient, or in circumstances where a ligature was not at hand, few surgeons now resort to it. The employment of torsion for the arrest of hemorrhage from large blood-vessels was suggested to Amussat by the recognized fact that torn wounds do not bleed; although at once adopted by Boyer, Dupuytren, Majendie and others, it was little noticed by the surgeons of other countries until the introduction of chloroform removed any object in hurrying over an operation. Revived by Mr. Bryant in 1868, it was soon applied by some surgeons to the exclusion of all other methods for the arrest of hemorrhage.

In an article on the Safety of Torsion in Amputation, by Thos. Bryant, Esq., Surgeon to Guy's Hospital, in *The Lancet*, of March 21, 1874, he says: "On March 6 I was called upon to remove a mutilated forearm from a man aged twenty. I amputated below the elbow joint, and arrested bleeding by twisting all the arteries, with the exception of the inter-osseous, to which I applied a ligature of carbolyzed catgut. I could not twist this artery on account of its immediate connection with the inter-osseous membrane; at the end of six days hemorrhage took place from the stump, which was stopped by raising the limb; but as it recurred toward night, the stump was opened. It was then made out that the bleeding had taken place from the inter-osseous artery. The vessel was again tied by my dresser, and the man has gone on well since. This is the only case of secondary hemorrhage from a stump that has occurred to me since I began the practice of torsion of arteries in January, 1868, and it is interesting to know that in it the bleeding came from an artery that had been ligatured, and that the ligature was of carbolyzed catgut. We have now had at Guy's Hospital upwards of two hundred cases of amputations of the thigh, leg, arm, and forearm, in which all the arteries have been twisted (one hundred and ten of these having been of the femoral artery), and no case of secondary hemorrhage." And yet torsion has almost been abandoned. Few surgeons to-day would trust to it except in very small vessels, and in cases of operation in which from any cause it is necessary to save all the time possible.

The pneumatic aspirator was presented to the profession in 1869 by Dr. Dieulafoy, of Paris. In his own words: "On November 2, 1869, Professor Gubler presented in my name to the Academy of Medi-

cine an apparatus which I had named an aspirator, and a paper giving a general view of a method called aspiration. In this paper I showed how aspiration constitutes a method of diagnosis and treatment, by means of which we can proceed with certainty, and without danger, in our searching for pathological fluids, whatever may be their seat or their nature. Exploratory punctures, less sure, and sometimes dangerous, will henceforth give place to aspiratory punctures, always harmless. The most delicate organs of the economy will be traversed without any bad results, and collections of fluid hidden in the depths of the tissues will not escape our means of investigation in the future. I said in this paper that urine could be aspirated in cases of retention, and that strangulated hernia could be reduced after the aspiration of the gas and fluids which distend the intestine. I pointed out that the same process was applicable to hydrarthrosis—pericarditis, acute and chronic pleurisy, to various kinds of cysts—in one word, to effusions of every description, serous, hæmatic, or purulent, which can be searched for, found and exhausted. The truly important point, which I made prominent in my communication to the Academy of Medicine, was the principle on which this method, which includes the treatment of all pathological fluids, is based; and this principle is inseparable from two conditions, namely:

- "1. The use of extremely fine hollow needles.
- "2. The creation of a previous vacuum."

Listerism has now supplanted the treatment of collections of pus by means of the aspirator. Few surgeons to-day would be satisfied to use it in cases of strangulated hernia, unless they were seen very early indeed. But for purposes of diagnosis, for the relief of the over-distended bladder, in cases where it is impossible to pass a catheter, it remains to-day, as it was when invented, an exceedingly valuable and useful instrument, and one which should be in the hands of every surgeon.

Prof. Dittel, of Vienna, accidentally discovered that the slightest yet continuous pressure of a simple elastic thread causes absorption of the parts pressed upon, so that the thread eats its way into the structures, and this without pain. A girl died with severe brain symptoms, and it was found that the India rubber band of her hair net, which she had worn night and day, had ulcerated through the whole thickness of the calvarium, and set up meningitis. Prof. Dittel has now performed a large number of operations by means of the elastic thread or band, including five amputations of limbs. The time required for the separation of a ligatured part varies with the amount and density of the tissues which have to be divided. For example, for the separation of the mamma, from eight to twelve days are required. The above is taken from an article by Sir Henry Thompson in the *British Medical Journal*. To-day about the only use to which the elastic ligature is put is in cases of fistula in ano too deep for the safe use of the knife, and for the removal of soft growths in which the patient will not consent to the use of the knife.

Osteotomy, says MacEwen, in its broadest sense may be defined as a section of bone. It has, however, been regarded in a much more restricted sense, the term being applied to such divisions of bone as have been proposed and undertaken for the relief of deformity, for the rectification of badly-united fractures, and for the straightening of limbs affected with osseous ankylosis which are fixed in a bad position (Osteotomy, page 33). All sections of bone for the

relief of deformity, prior to 1852, were performed through open wounds. In that year Langenbeck made a division of the femur for anchylosis of the hip joint, by perforating the bone with a drill through a small wound in the soft parts, and then, introducing a narrow saw, divided the bone. He gave to this operation the name of subcutaneous osteotomy. In 1868, L. Stromeyer Little made use of a carpenter's chisel to divide the bone in a case of osseous anchylosis of the knee joint, working through a small wound half an inch in length. In the following year Mr. William Adams performed the operation of subcutaneous section of the neck of the thigh bone, known as Adam's operation. Previous to this only two surgeons (both American) had attempted the relief of anchylosis of the hip joint by division of the femur. By both, the thigh bone was divided just below the trochanter major, between it and the trochanter minor, with the object of getting the false joint in the axis of the limb. Neither surgeon operated subcutaneously. Ogston, May 17, 1876, divided the internal condyle of the femur with a saw, in a case of genu valgum, and Reeves, March 17, 1878, made a section of the internal condyle, in Ogston's line, with an osteotome, and on February 22, 1878, MacEwen first performed the operation above the condyle. Of six hundred and twenty-two cases of MacEwen's operation (section above the condyle) as far as can be ascertained there have been but three fatal cases reported that could in any way be attributed to the operation. Out of one hundred and ten cases of Ogston's operation only two are reported to have died, one from septic pneumonia and one from uræmia, six weeks after the section. The latter cannot be attributed to the operation (Osteotomy and Osteoclasia, by Charles T. Poore, 1884).

Esmarch's India rubber bandage and tourniquet, for the purpose of making operations bloodless, was first described by Prof. Esmarch at the Second Surgical Congress in Berlin. It was first used in England by Mr. Wm. MacCormac, in St. Thomas' Hospital, August 16, 1873. It has to-day practically superseded the use of other tourniquets, except for special cases to which it cannot be applied. The introduction of hæmostatic forceps for the suppression of hemorrhage during operations also marked a new era in surgery. Condurango, an alleged remedy for cancer, had a short lived newspaper notoriety, but it never was endorsed by the profession, although experiments were made with it, which only proved it to be utterly worthless.

The thermo-cautery of Paquelin was a distinct improvement over anything in the shape of a general cautery which had previously been devised. To Dr. Fessenden N. Otis, of New York, is undoubtedly due the credit of first demonstrating to the profession the real calibre of the male urethra. The old-fashioned idea, that where a No. 12 English bougie could be passed easily through the urethra no stricture existed, was completely exploded by his investigations, with a consequent increase in the sizes of bougies of from twenty-four to forty of the French scale, and the detection of hitherto unsuspected strictures of large calibre by means of enlarged bulbous bougies and the instruments of precision which he invented, together with a recognition of the causes of many obscure reflex nervous symptoms not previously referred to their proper cause, stricture of the urethra, often of large calibre. Since his demonstrations we can now at last hopefully expect the radical cure of stricture, certainly in a large majority of cases; not necessarily by the operation which he has devised, but because

under any plan of treatment which may be adopted the surgeon is no longer satisfied until he has restored the urethra to its normal calibre.

The revival of supra pubic lithotomy and the introduction of Dr. Bigelow's operation of rapid lithotripsy or the removal of the crushed stone at one sitting under an anæsthetic have revolutionized the treatment of stone in the urinary bladder. Certainly for the removal of morbid growths in the bladder and for purposes of exploration the supra pubic route is the one now chosen by the majority of surgeons. Prof. Bigelow's first paper on rapid lithotripsy appeared in the *American Journal of the Medical Sciences* for January, 1878. In March, 1878, three months after the appearance of Bigelow's paper in America, in a discussion following a paper by Sir Henry Thompson read before the Royal Medico-Chirurgical Society in London, the general conclusion of some of the best surgeons of England seemed to be that nothing more need be expected from lithotripsy, that perhaps even it had been pushed too far, and that in future probably it would be better to crush less and cut more. Prof. Keyes, of New York, says of it in his article on Urinary Calculus in the "International Cyclopædia of Surgery," "This operation is to-day accepted by Thompson, and is described in the last edition of his lectures, to the exclusion of old-fashioned lithotripsy, which he apparently no longer performs. Indeed, the new operation promises in a few years to displace the old one entirely, and for the most part to do away also with lithotomy for males who have passed the age of puberty."

Dr. Sayre first used his plaster jacket for the treatment of Pott's disease in 1875. Extension being made by holding the child up by the arms—the weight of the body acting as an extending force—the cast was cut down as soon as it had hardened, and was fastened by a firm bandage above the hips and by an elastic one over the thorax, to prevent interference with respiration. By January 1, 1876, the jacket had been applied in more than sixty cases with the happiest results. The application was soon modified by using the suspension apparatus and the insertion of a dinner pad.

The treatment of hemorrhoids by the injection of carbolic acid was and is extensively practised, in the first place by pile doctors and subsequently by members of the medical profession. Dr. C. B. Kelsey, of New York, contributed a paper on this subject to the *American Journal of the Medical Sciences* for July, 1885, which he says is written in response to many inquiries whether he is still in favor of the method of treatment by injection of carbolic acid which he advocated in his book published in 1884. "In a period of a little over two years Dr. Kelsey has been called upon to treat no less than 200 cases of hemorrhoids, and in only two of these cases has he found himself compelled to resort to any other proceeding than injection. Dr. Kelsey uses carbolic acid solutions of 15, 33 and 50 per cent., and in some cases the pure acid, according to the severity of the disease, in the severer cases using the stronger and in the milder the weaker solutions. The injection is performed upon different tumors at varying intervals, in one case recorded fourteen injections were performed in three days. The maximum period occupied in the cure of a bad case is from ten to fourteen weeks. The injection often caused sloughing, but the amount of sloughing was always directly proportionate to the amount and strength of the injection. Patients operated on say that the pain of the procedure, as a rule, is not greater than that caused by the ordinary hypo-

dermic puncture. For a couple of minutes there was a smarting, tense feeling, and after that no sensation whatever. This had been repeated six or eight times till the patient was cured, and the intervals between each injection were passed in absolute comfort. One patient fainted on the table from the first injection. In no case have I had an accident of a serious nature. Never any signs of embolus, never any serious sloughing or inflammation, no trace of pyæmia or hemorrhage. The 200 cases on which the paper is based are all spoken of as cured. Since this paper was published Dr. Kelsey has, we believe, practically abandoned the operation.

The discovery of the local anæsthetic effect of hydrochlorate of cocaine has made a distinct impress on the progress of modern surgery. Quite extensive operations have been performed on areas of tissue made insensible by its local distillation or hypodermic injection. That it is a method of value there can be no doubt, but that it is not free from danger has also been abundantly proven. Its precise value can probably hardly yet be estimated.

Intubation of the larynx as a substitute for tracheotomy, as suggested by Dr. Joseph O'Dwyer, has been extensively practised. It is too soon yet to prophesy what its ultimate position will be as a surgical procedure.

Among the minor surgical inventions, Morton's pure rubber bandage should not be forgotten.

Nephrotomy, an incision into the kidney for purposes other than the extraction of a calculus, is now performed for hydro-nephrosis, when the cyst refills rapidly after having been punctured for hydatid cysts under similar circumstances, or when from the number and size of the daughter cysts the contents cannot be evacuated through a small tube; for pyonephrosis, and for any case in which the kidney has been converted into an abscess, whether from the presence of calculus or tubercle. There is no doubt that surgery is indebted to Mr. Henry Morris, of the Middlesex Hospital, for the invention of the modern operation of nephro-lithotomy. He performed his first operation in 1880. Some hundreds of operations have been performed since then; but the operation of to-day practically continues as Mr. Morris left it (Greig Smith). The late Professor S. W. Gross, in a paper published in 1887, states that of sixty-three examples of attempted or accomplished nephro-lithotomy only 3, or 4.76 per cent. perished, a measure of success which is seldom attained in any other capital operation. *Nephrectomy*, or the removal of the kidney from the living body was first performed as a planned operation in the human subject by Gustav Simon, of Heidelberg, in April, 1869. Three different surgeons had preceded Simon in excising the human kidney, but without knowing the nature of the tumors they were removing until the operation had been completed. The first of these operations had been performed in 1861; the others in 1867 and 1868. The ventral method was employed in each, and all the patients died. Simon's case was the fourth in which nephrectomy was performed, and the first in which the lumbar method was adopted. The patient fortunately recovered, and from that time the operation has been recognized as a legitimate one.

Nephrorraphy, the operation of fixing by operation the wandering kidney in the loin was first performed by Dr. E. Hahn, of Berlin, in 1881. Professor Keen (Transactions of the American Surgical Association, Vol. VIII), gives a table of one hundred and thirty-four operations with four deaths, a mortality of about 3 per cent. Of one hundred and twenty-one cases fully

recorded there were, after three months: cured, 63; improved, 21; failed, 19.

Splenotomy and *splenectomy*, Dr. McCann, of Pittsburgh (Transactions of the American Surgical Association, Vol. V, 1887), gives a table of all the cases operated on from 1881 to 1886, inclusive, of nineteen cases in all, with thirteen recoveries. Ashhurst has collected forty-three splenectomies for disease, with thirty-one deaths, and twenty-one operations for injury or prolapse, all successful (Greig Smith).

Cholecystotomy and *cholecystectomy*, June 15, 1867, Dr. Bobbs, of Indianapolis, in an obscure case of abdominal tumor opened the abdomen, and then the tumor, which proved to be the gall bladder, and removed a number of calculi, while not knowingly intending to do cholecystotomy (he calls it lithotomy of the gall bladder), yet such it actually was. In April, 1878, Dr. Marion Sims deliberately planned and performed the operation in a case of dropsy of the gall bladder and removed about sixty stones, as well as the fluid contents, the patient died eight days after the operation, and at the post-mortem examination there were found sixteen other stones in the gall bladder. At the present time, as regards technique and results, Tait holds the leading place with a series of some twenty published cases, all successful.

Langenbuch, 1882, first successfully removed the gall bladder. The gall bladder was hypertrophied and adherent to the neighboring tissues, and contained a large number of stones, some of them adherent to the walls and threatening perforation. In twenty-two cases collected by Depaye there were only two deaths as a direct result of the operation. Thus far the mortality of cholecystectomy (under 10 per cent.) is more favorable than that of cholecystotomy (over 15 per cent.)

Hepatotomy, the name usually given to direct incision through the liver tissue after abdominal section, is the operation which most commends itself for hepatic abscess; with laparotomy the risks of wounding omentum or bowel are done away with. We see and can control the bleeding from the liver. The danger of escape of the abscess contents into the peritoneum can be met and overcome, and if they do so escape they can be mopped up, while lastly, and not least important, a second abscess can be seen and opened, as has already been done in at least one case (Thornton.) To Tait, of Birmingham, belongs the chief merit of introducing and establishing the operation with laparotomy. He had done the operation ten times when his work was published; nine times for hydatids, and once for abscess; all were successful. The advantages of this method over aspiration; puncture by trocar, leaving the canula in situ, opening by caustic or by thermo-cautery. Incision *à deux temps*, after the artificial formation of adhesions between the liver and abdominal wall are too evident for discussion.

Gastrotomy, for the removal of foreign bodies from the stomach, and gastrotomy for the formation of a gastric fistula by operation, were both performed more than twenty-five years ago.

Digital dilatation of the pylorus was first performed by Professor Loreta, of Bologna, on September 14, 1882. Dr. J. M. Barton has tabulated twenty-five operations by different operators on twenty-four patients; one patient having been operated on twice successfully by Professor Loreta. From the twenty-five operations there were fifteen recoveries and ten deaths, making a mortality rate of 40 per cent. Professor Loreta has since performed dilatation of the cardiac orifice of the stomach with success.

GUNSHOT WOUNDS OF THE ABDOMEN.

The treatment of gunshot wounds of the abdomen by laparotomy is one of the latest developments of modern surgery. Up to 1885, according to Parkes, only six operations for this class of operation were recorded. Dr. Kinloch, of South Carolina, operated in 1863. Coley tells us that the first laparotomy for gunshot wound of the abdomen was by Baudens in 1836. He resected eight inches of the small bowel and united the ends by Lembert's suture. After the death of the patient, three days later, an undiscovered wound of the cæcum was found. Baudens operated a second time for wound of the transverse colon. In this case simple closure of the wound was followed by recovery. Kocher, of Berne, had a success in 1883. Among the most remarkable of laparotomies for gunshot wound was one by W. T. Bull, of New York, performed in 1885, in which no fewer than seven intestinal perforations were discovered and closed. The patient made a complete recovery. To this, in the following year, he added another success quite as remarkable. In Kocher's case, operated on three hours after the receipt of the injury, the stomach was perforated.

The statistics of abdominal section for traumatism presented at the Newport meeting of the American Medical Association by Morton, in 1889, give one hundred and ten cases of section for perforating gunshot wounds, with thirty-six recoveries, a mortality of 62 per cent. Of all penetrating gunshot wounds of the abdomen nearly 88 per cent. are fatal, therefore the total mortality, considering the nature of the injuries, the usual condition of the patient when placed on the operating table, and the necessarily tentative nature of the earlier operations, cannot be regarded as other than exceedingly satisfactory (Greig Smith).

LAPAROTOMY FOR STAB WOUNDS OF THE ABDOMEN.

Morton's statistics, 1889, give seventy-nine cases, with forty-eight recoveries, a mortality of 39.24 per cent. This must be regarded as a very satisfactory mortality, considering the nature of the injuries (Greig Smith).

The wonderful development of cerebral surgery in the last few years, in which some of our Fellows have been largely instrumental, has been one of the most gratifying and successful evidences of the progress of modern surgery. The successful removal of intra-cranial tumors, the location of cerebral lesions and their removal by the trephine and knife, are becoming matters of daily occurrence. In the language of Prof. Charles K. Mills, "more and more has that region been narrowed which cannot be reached by the venturesome surgical explorer." The lateral aspect of the pre-frontal lobe, the entire motor area, the superior and inferior parietal lobules and the upper temporal region can, of course, be attacked with the greatest facility. In the regions difficult, yet possible, of access, lesions of large size and of displacing character will be more readily reached. The orbital surfaces of the pre-frontal lobe can be reached and large displacing lesions removed by trephining low down in the frontal bone. In Durante's case the tumor removed occupied the left anterior fossa of the cranium. Almost the entire temporal lobe, with the exception of the parts bordering on the mid-brain, is accessible. The occipital lobes have been operated on successfully. With care the great median fissure may be entered for lesions of the marginal convolutions and limbic lobe. The longitudinal

sinus has been successfully plugged and ligated. The outskirts of the ganglia have been approached, and the ventricles have been pierced. Even a tumor situated on the intra-cranial portion of the auditory and facial nerves can probably be reached and removed. Suckling and Jordan, Bennett May, Horsley and Weir have looked, during operation, with the eyes of the flesh on the foramen magnum itself. Absolutely invisible then are only the middle region of the base and its bordering convolutions, the corpora quadrigemina and pons oblongata.

The modern treatment of hydrophobia by the method of Pasteur, and the still more modern treatment of tuberculosis, surgical as well as medical, by the method of Koch, have aroused more interest, popular as well as professional, than anything that has occurred in the broad realms of medicine since the discovery of vaccination. I quote the following from an editorial article in a leading Philadelphia newspaper of last week :

IMPORTANT MEDICAL ANNOUNCEMENT.

Prof. Lister, perhaps the most distinguished pathologist living in England, delivered a lecture at King's College Hospital, on his return from a visit to Berlin, where he had exceptional opportunities for seeing Prof. Koch's work, not only with regard to tuberculosis, but also in general bacteriology. What he says of the first subject presents little that is new to the public, except, perhaps, that he emphasizes the points that have already been presented by other medical men. He professes absolute belief in the value of Dr. Koch's lymph as a *diagnostic* agent and as a cure in some cases of tubercular trouble, and suggests more hope of its being a cure for consumption than most of his conferees.

To the general public, however, the conclusion of his address is more interesting. He told his auditors of the promising results obtained by Koch concerning two of the most dreadful diseases that afflict mankind: diphtheria and lockjaw. He saw animals suffering from these diseases apparently cured by injections of certain unnamed substances. Further, he saw animals that had been treated with these substances who were proof against contagion or inoculation by the same diseases, though applied in a concentrated form. But to the medical mind the statement that this newly-discovered curative was "an inorganic chemical substance as easily obtained as any article in the *Materia Medica*" is the most surprising. Some physicians have long suspected that both the destructive diseases named are produced by living organisms, and probably by vegetal organisms. That any substance, especially an inorganic one, should cause the death of these organisms in the tissues of the body without causing injury to the much more delicate and higher organized animal on which they feed, is a theory which medical men will, very probably, be slow to accept. Yet Prof. Lister not only states that he has seen these results, but offers the hope that a similar substance may be obtained for the cure of tuberculosis.

In the same number of the *British Medical Journal* in which this address is printed is an article by another prominent pathologist, Dr. Russell, of Edinburgh, in which—but with proper caution—he charges the existence of cancer to the presence in the tissues of another organism, a fungus allied to the yeast-plant. If the next few years shall develop cures for four of the most dreadful diseases with which the human race is afflicted—consumption, cancer, diphtheria and lockjaw—the marvelous advance of antiseptic surgery, to which Prof. Lister himself has contributed so much, will be rivaled by these later marvels.

Time fails me to even allude to many of the suggestions of modern surgery, or of brilliant operations which have been performed, but whose value have not been established, and I have purposely refrained from entering the domain of the gynæcologists, with whose wonderful performances and brilliant successes we are all familiar.

When we consider the improved mortality after all operations, the result of Listerism, the gospel of cleanliness, and an improved technique, the hitherto hopeless cases which are now daily relieved from suffering and restored to health and usefulness, by the per-

formance of operations that twenty-five years ago were either absolutely condemned, obscurely hinted at, or not even conceived, we must acknowledge that surgery has progressed, that human suffering has been relieved and human life has been prolonged, to an extent never before dreamed of in such a space of time, and yet we seem to be only on the threshold of new discoveries and of new methods.

Original Articles.

THE SURGICAL ANTISEPTICS.

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THE object of this work is to bring under consideration the value of aseptic and antiseptic surgery. This is done to clear up an amount of indefiniteness in the use of the methods for the treatment of wounds of all characters. The technique of an antiseptic dressing does not seem to be as clearly understood as it should. The use of bichloride of mercury, the dusting of iodoform and placing of iodoform or any other gauze, does not constitute an antiseptic dressing. Here it is that the criticisms of some arise. This is not entirely confined to the family physician who makes no pretence to surgery, but applies to many who class themselves amongst operators more or less renowned.

To make this subject clear the various antiseptics have been carefully considered, probably not in their true order according to some, but according to the writer's work and observations. This has not been done without appreciating the mannerisms of others. Surgeons may differ about antiseptic dressings and the like, and each may be right in his own argument. Success lies in the thoroughness of application of a dressing. The preparatory steps may be diametrically opposite those of another, and still give as good results. The result lies in the manner and care of using what one has. Experience has been the teacher in this case. So, any dogma given by any single person is not absolute, though based on theory and practice. It is as he sees it, yet the aggregation of experience is apt to be right, and consequently safe to follow.

While the practice underlying this article is positive and based on considerable experience, credit is always given to one who can honestly assert a fact.

Lawson Tait and Mr. Bantock use nothing but boiled water, and their results, while seeming strange at first and apparently contrary to the theory of antiseptics, have brought all thinking laparotomists to the same conclusion. Still their theory is the true one, being prevention of sepsis. It is asepsis, not antiseptis.

It is not intended to enter into a consideration of the species of organisms concerned in suppurative change. Neither is it to discuss the seeming difference between experimenters in the laboratory and the clinician at the operating table.

Clinically it is not a question whether acute mammary abscess starting deep in the structures is due to staphylococcus, or that the more superficial arises from the streptococcus.

The study of the entrance of these organisms into the tissues of the human body, setting up their various actions, gives us the key-note for the proper treatment of wound surfaces.

The entrance of organisms into wounds is by means of direct contact. The possibility of infection from the air is exceedingly slight, for careful experimenta-

tion shows that they exist in it in so slight a degree as hardly to be considered factors.

Their residence in the epidermis of the body and non-destruction is the most common cause of infections; then the contact of operators, instruments and dressings furnishes the balance, or they aid by their imperfections the development of these bodies, and then they find their way into the wound to a pabulum sufficient to sustain them.

The true reason of success lies in the fact that it is easier to destroy them out of the body than in it. The proper preparation of the patient's surface and everything in contact will accomplish this. The thickened epidermis about the wound edge is a favorite seat for germs. This epidermis is increased in thickness by the antiseptic used, and furnishes shelter and protection from the antiseptic; then warmth and moisture do the rest.

Why acute abscesses start seems difficult to explain. There is no possibility of their origin from germs brought by the blood; but by direct contact of germs passing through the cutaneous and mucous surfaces, then carried or developed in the lymphatics. There is at some point on the cutaneous or mucous surfaces an abrasion, and through this defect do the organisms find their entrance. It is purely a question which has the greatest vitality, the body or the organism.

Experiments on animals have shown that when micro-organisms were introduced into the circulation, and any part of the body was injured, there was an invasion of these micro-organisms into the injured tissues. Their action was modified according to the length of time they were in the circulation; their number and vitality being evidently lessened the longer they were in contact with the blood. Yet the same organism when injected into healthy non-injured animals gave negative results, with its prompt destruction.

While discussing the advantages and disadvantages of the various antiseptics, and while the tendency is to credit the drug used with the results, we must not overlook the importance of careful operative work. If any advance has been made by this new method, it has been aided by the amount of care exercised in the operative procedure, by quickness of work, neatness, lessened tendency to injure tissue, and close coaptation of edges. These have aided, slight though they seem to the casual observer, in bringing this method to perfection. While fair results would be got in almost every case, by the use of antiseptics alone, much better endings are obtained where care is taken. Any man who has had the opportunity to see the old and the new will readily appreciate the value of this statement. Look at the care exercised by the laparotomist inclosing the abdominal wound, the bringing of tissue to tissue, and see the results. The work of to-day is done for results, not for the hope of what may be, as it was in the past. Appreciating the value of this, we work but for a definite ending. Amputations are done, to heal under one dressing. There is no day or hour set for the suppurative stage, no tension to be relieved, no secondary fever; and how little is hemorrhage to be dreaded? Wounds are closed with a care that is due to experience of results.

Joseph Lister, noticing the favorable results that followed in subcutaneous wounds, claimed that this was due to the fact that they were not in contact with the air; therefore, a definite cause must be present in the air that came in contact with external wounds, causing suppuration.

He then, in 1867, arguing on this basis, began the use of carbolic acid; to destroy the infective germ and by this reach the same end as in the subcutaneous wound. In 1870 he gave to the world his dressing for wound treatment, which now has entirely gone out of practice.

Then, as it was proved that the disturbance in wounds was due to the micro-organisms, it became necessary to devise a dressing of sufficient value to possess antiseptic power, minus irritation. Antiseptics were numerous, yet more data were necessary to reach the place that it has to-day. Then to Koch is the honor due for the perfection we now possess.

The advance made by Koch over Lister and his followers lies in the proving of the fact that even laudable pus is the product of a specific coccus. This idea was advanced twenty-five years before by C. Huster, but as he could not definitely prove his theory, it was not received with credit.

As healthy plants and healthy human and animal bodies are free from micro-organisms, it is certainly to the epidermis, fluids and tissues, that protection from invasion is due; but the moment this epidermic surface is injured, exposure by contact is possible. There is no doubt, though, that many internal diseases are due to micro-organisms.

If this is a fact, then it is our object to so protect the parts from contact with micro-organisms that entrance is not possible. Means must be devised to prevent an entrance, for if they should have reached the tissues, though every effort may be made to destroy them, it is possible that, though partly devitalized, they may renew their life with as much vigor as before. The acme of success is in prevention, not in arrest. Thus, not only must the parts be clean, but everything in contact be the same—operators, assistants, instruments, and dressings.

The ability of the system to throw off septic virus, lies, in a certain extent, in the quantity and quality of blood brought to the part.

The transmigration of the leucocytes has been proved to be a factor. Metchnikoff, by careful observation of the leucocytes, has proved that they feed like amœbæ, and while omnivorous in their appetite, have a special fondness for bacteria. These are taken into their protoplasmic substance and digested. It is by this that bacterial action is limited. He terms them "phagocytes." Though this theory is disputed, the fact is still present that the leucocytes are factors, whether they do or do not act as he says.

This serves to explain certain results that were hard to harmonize with the aseptic treatment of wounds.

The results are, all things being equal, dependent on the lymph thrown out, for in it are the leucocytes that come in contact with the virus. On these grounds Lister thinks that unprepared silk may be used with comparative impunity. The ability of the leucocytes to penetrate between close bodies allows of their passing in between the strands of silk, therefore they are able to destroy any organisms that are present or liable to enter. Still, he says, it would be wiser to sterilize the silk.

ASEPSIS AND ANTISEPSIS.

The study of wounds, their healing, suppuration, and destruction of tissue, has shown that some definite causal factor must be present. This is proved by the study of the micro-organisms. It is not the micro-organism that is the factor, but the product formed in the course of its growth or multiplication. This product is the cause of sepsis. The non-presence

of this organism in a wound surface, represents an aseptic condition; but when contamination has taken place, and it is a necessity to restrain its growth and results, we have present a septic state; and the means taken to destroy these organisms are called antiseptics.

The type of an aseptic wound is in the fracture of a bone, union taking place without suppuration. The healing of a wound may not be by the first intention, yet still be aseptic; it may be hindered by lack of care in the coaptation of tissue. But the possibility of securing an aseptic condition should only intensify the effort to so place the parts that this result may be gotten quickly.

Operations may be placed in this condition prior to any interference, by taking the necessary means to so clean the parts that the organisms do not find either a place or means for existence. Any deviation from these conditions, which is shown by the presence of inflammation and its consequences, changes this into the septic state with its consequent disturbances.

This brings us to the study of antiseptics. They embrace everything which is applicable to the parts with a capability of destroying the infective germ. The action of the antiseptic may be aided by means taken to prevent the presence of such germs or of food for their development. The lessening of injury to tissue, the removal of tissue or of secretions which may by their presence furnish a ground for germinal existence or growth, assist in converting a septic into an aseptic state. This opens a field which is exceedingly large. It can be covered by two propositions: (1) Cleanliness. This is, in all that appertains to the wound or its surroundings, cleaning away all discharges, removal of débris, seeing to the proper vitality of tissues and the exclusion of any septic material. (2) All means used in the production of the first are classed under antiseptics. They render all that comes in contact with them aseptic.

The means used for the purpose of rendering surfaces and wounds aseptic, and maintaining this condition afterwards, are classed under the heads of lotions and dressings. Some combine the double advantage of being in both classes. Each plays its part, directly, as it is more or less efficient.

LOTIONS.

Bichloride of Mercury.—Of all antiseptics, this drug has best stood the test of time and outranks all others. It is the type of antiseptics having the power not only to destroy the germ but also the ova. No substance is a true antiseptic unless it possesses the power to do both.

Koch showed that the bichloride was apt to be rendered inert by decomposition through the presence of albumen. This is overcome by combination with chloride of sodium or a weak acid.

Solutions of bichloride, to be permanent, should be combined with chloride of soda. Some say this must equal the weight of the bichloride, others that it should be ten times the weight of the sublimate.

Laplace has advised the combination of tartaric acid, to overcome this decomposition or combination with albumen. To make a solution 1-1,000 he advises:

Hydrarg. bichloridi.....	gr. xv.
Acidi tartaric.....	3j. gr. xv.
Aq. destil.....	Oij.

The importance of these combinations is seen. The solution is brought into contact with blood and serum, possibly in large quantities, and if not so combined, it is possible that complete disinfection may not have taken place.

Corrosive sublimate is free from odor and non-irritant, though where strong solutions are used, irritation of the skin may occur. Wound secretions decrease and pus cavities sweeten rapidly under its use. It is, to-day, the most perfect antiseptic known.

If the proper care has been exercised in every step of the technique, a wound dressed by this method will heal under the first dressing. If suppuration or inflammation should occur, there is no question but negligence has been present somewhere in the procedure.

It is used in varying strengths—1-500, 1-1,000, and 1-2,000. In ordinary wound dressing the 1-2,000 is the usual strength for irrigation. The others are used for cleaning the patient's body and the hands of operator and assistants. The towels used around the seat of operation are wrung out of 1-1,000.

The toxic possibilities of bichloride must not be forgotten. This occurs in a fair proportion of cases, usually where repeated use of the drug is called for. One of the most common is in intra-uterine and vaginal injections. The first symptom is usually enteritis. For cavities where retention is apt to take place, the proper strength is 1-10,000. The bichloride cannot be used to disinfect instruments on account of chemical action on the metal.

Lister, in speaking of the use of boiled water for abdominal work, as advocated by Lawson Tait and Mr. Bantock, thinks that it would be advisable to render the water more effective against germs by using bichloride in the strength of 1-10,000. While advising 1-500 bichloride for wound surfaces, to be irrigated in the last steps of the operation by 1-1,000, he deprecates its use in such strong solutions as 1-500 to articular surfaces. His experience has proved it too irritating for synovial membranes.

He also looks forward to the time when irrigation of wound surfaces will not be necessary, and that perfect closure will be possible without drainage. This is not possible, he thinks, in the present state of aseptic treatment. A means less irritating than the present is a necessity for this end. This opinion is probably based on the fact of the superiority of the bichloride over the carbolic acid, which he advocated.

Hot solutions are more effective than the same solutions when cold.

Peroxide of Hydrogen.—This is being advocated as an active germicide, effective and non-irritant.

It comes in a 15-volume solution. It is applicable to all infected surfaces and sinuses. The septic tissue is brought, in a few applications, to a sterile state. It gives, on application, a peculiar ebullition, which continues until exhaustion or sterilization takes place. It is used in full strength, or diluted. There is no pain on its application. It is generally applied with a sprayer of hard rubber or glass. The frequency of repetition is governed by the condition of the parts. A whitish pellicle is left after application.

It seems to have no action on animal cells, but has a very energetic action upon vegetable cell microbes. It has been very effective in diphtheria and aphthous conditions of the mouth.

There is no doubt that it is an exceedingly effective antiseptic. There is a weaker antiseptic preparation of this drug under the name of glycozone, for internal use. Its stomachic antiseptic effect is marked.

Care should be taken that a reliable preparation be got. It is liable to change by too frequent handling. It should be kept in a cool place. It is not applicable to fresh wounds, but to surfaces that are septic in nature; sinuses that are difficult to reach, and indolent ulcers, specific and non-specific. It has been used

with remarkable success in acute purulent dacryocystitis. I have seen it used in an obstinate multiple abscess of the neck, due to caries of the lower jaw, that had responded but very slowly to bichloride solution. The results were immediate—the discharge lessened at once, and closure of the sinuses took place. It is advised to be used diluted, rather from economy than any fear of danger. It can be applied by wetting cloths with it, and then covering them with some impervious covering.

Carbolic Acid.—This is a product of the distillation of coal tar. It is seen either in acicular crystals or crystalline masses; white or colorless when perfectly pure; reddish even when slightly impure, or turning so on exposure. It is deliquescent, and soluble in 21-33 parts of water. Alcohol, ether, chloroform, glycerine, and the essential oils, dissolve it freely.

Its first use as an antiseptic in wound dressing was by Lemaire, in 1860. He failed to make it successful. It was then taken up by Lister, who, after various modifications, developed the "Listerian method" of treating wounds. This then became the sole method of treatment. As the knowledge of antiseptics and of wounds increased, other antiseptics were introduced; yet, to the use of this drug, is the credit due of opening the new era in surgery.

Water has not a strong affinity for it, and the acid is readily given off, causing tingling and irritation of the skin. It is better to mix glycerine with the acid first, then add the water. The watery solutions are of two strengths, one being 5 per cent., the other 2½ per cent.

The 5 per cent. is usually used for disinfecting the hands of operators and assistants, also the parts included in the operation. Sponges, silk, and drainage-tubes are kept in a solution of this strength.

The 1-40 solution is for irrigating the wound during operation, washing the sponges used in the operation; also, for keeping the instruments in. The addition of glycerine makes the acid soluble, and prevents its volatilization.

In wounds that are markedly septic, the 1-5 solution has been used. Carbolyzed oil is a solution in olive oil in varying proportions.

The 5 per cent. is the strength used for keeping catgut. Koch has proved that solutions of carbolic acid in oil are practically inert against germ life. Therefore, catgut, instruments, etc., that have this solution applied to them, have no antiseptic properties; though, when oily solutions are applied to animal tissues, they give up part of the acid to the water of the tissues, before the antiseptic properties of the acid can be developed.

It is a reliable antiseptic in comparatively weak solutions, as 1-20, and 1-40 may be depended upon. The complete admixture with all the secretions, and its non-escharotic effect, allow of its complete penetration into all parts of the wound surface; thereby thorough disinfection is obtained.

The greatest objection to the use of carbolic acid is the local irritation it excites. It forms a compound with the albumen of the tissues, therefore it is necessary to use greater quantities to get complete disinfection. This, then, sets up an irritation of the capillaries, with consequent serous exudation, which is directly in proportion to the irritation. The exudation of serum is the great obstacle to perfect antiseptics, therefore, when carbolic acid is used, extra precaution must be made for proper drainage. This not only forms, by its presence, a nidus for germ

growth, but interferes mechanically with perfect union.

Irritation of the skin is apt to follow when dressings are used, such as eczema, erythema and numbness of the skin.

Its volatility is another objectionable feature. This fact interferes with true antiseptics. It requires frequent change of dressings, which is contra-indicated, for the perfect application of this theory lies in non-interference with a properly dressed case. The dressings are soon saturated by the discharges. They are then rendered useless by the absence of a sufficient quantity of the antiseptic. The use of the mackintosh keeps the parts moist, and this, with the absence of sufficient acid, has a tendency to produce the condition which it is the object to prevent.

The toxic qualities of the drug are mostly due to idiosyncrasy, yet withal its use in great quantities in large cavities needs watching. Children are very susceptible to it, and women more than men. The effects vary from slight nausea and gastric distress to profound collapse. The urine will show the characteristic condition. There is no specific treatment.

Lister has had but two cases of poisoning. His mode of using it is different from the common procedure. He, in fact, brings but little acid in contact with the wound, rather using it on all things that are used in the operation. By this means it is readily understood how little liability there would be to toxic effects.

These few disadvantages have been factors in the superseding of the acid by other agents as efficient, if not more so, with none of its defects.

Silico Fluoride of Soda.—Neudorfer speaks highly of this compound. He prepared it in 2 to 5 per cent. mixtures of gelatine; then inoculated it with full-grown yeast spores. With both strengths it remained free from germs. He claims that this established it as one of the few inorganic chemical antiseptics.

It has been used to a considerable extent for operations on the eye, in the strength of grains $\frac{1}{2}$ to water f3j, but has been discarded as having no advantage over boracic acid.

I have used it largely in operations, especially in cervical adenitis in young children, where the pus cavity was seated deep in the muscles of the neck, and where there was a possibility of retention. The strength varied from $\frac{1}{2}$ to $1\frac{1}{2}$ grains to the ounce of water. It gave good results, but in a series of experimental operations in the abdomen, where fecal extravasation was present, when this drug was used to cleanse off the intestines, the results were bad; while the free use of hot distilled water, or weak solutions of bichloride gave the opposite. It is non-toxic and non-irritant.

Chloride of Zinc.—Its restraining germicidal strength is 1-50. It is, therefore, classed amongst the weakest germicides, but clinical experience shows that it is of considerable value on infected surfaces.

It is used in a 10 per cent. strength. It is soluble in water, and caustic in stronger solutions. It is generally used on pus-forming surfaces. It destroys with certainty all germs, forming with the albumen a white, translucent film which restrains further infection, limits exudation, protects underlying tissues, and will resist for many days any contamination. This is the objection to its use on fresh surfaces. It is of considerable value on surfaces about the anus and mouth, where it is impossible to maintain a perfect dressing.

Kocher speaks highly of a weak solution, 1-500, for irrigation of pus cavities. This is continued until

the cavity is perfectly clear, then the application of an antiseptic dressing ends in a perfect healing of the cavity.

The combination of the power to destroy the germs and to restrain the further development of these organisms makes it an antiseptic of considerable value.

Creoline.—This is a product of English coal by dry distillation. It has been advocated in place of carbolic acid, which it is likely to supersede. It has not the marked germicidal effect that was first claimed for it. It is not effective in exudations containing albumen in less than 1-100, but as it is not as toxic as carbolic acid it can be used in stronger solutions. It was advocated as non-toxic, but this has been disproved by experience, though the cases may probably have been due to idiosyncrasy.

It is not soluble in water, forming an opaque emulsion. This is the objection to its use as a disinfectant of instruments. It is useful to disinfect the hands, as it is not irritating like carbolic acid. Its principal application has been in obstetrics, for which it has been highly commended; and it has been used to wash out cavities and as an irrigant. It is employed in the strength of 0.2 to 5 per cent.

DRY DRESSINGS.

Iodoform.—This is the ter-iodide of formyl. By the combination of formyl, which modifies the action, it becomes more or less anodyne in its effect. It is not perceptibly soluble in water, but imparts to it a sweetish taste; is soluble in 80 parts of alcohol at 59°, in 12 parts of boiling alcohol, 5.2 parts of ether, and in chloroform, benzol, fixed and volatile oils.

Its action on the tissues is not definitely fixed. Binz holds that it is dissolved in the fatty tissues. The iodine, therefore, being disengaged, unites to form iodides and iodates.

Hogges thinks the free iodine unites with the albumen; by so doing it forms salts.

Moleschott thinks it is decomposed in the blood, and the free iodine in its nascent state has very energetic affinities.

This is a field that requires more experimental work to reach a positive conclusion; still the consensus of opinion is that the virtue of iodoform lies chiefly in the iodine.

Laboratory work showed the growth of all pathogenic germs despite its presence. The contradiction lies in the difference between experimental and clinical results. The change iodoform undergoes when in contact with living tissues, with the liberation of iodine, renders germ growth inert. Ptomaines are capable of generating pus without the presence of micro-organisms, but its admixture with iodoform previous to infection prevents pus formation.

The use of this valuable drug is not devoid of danger, and it should be kept constantly in mind that certain toxic effects are apt to arise, not only complicating the present condition, but also endangering the patient's life.

Absorption may occur if used too freely. After an experience of some thousands of surgical cases of all characters without one case of poisoning, I am forced to believe that it lies mostly in an idiosyncrasy. There is no doubt that probably many of the so-called cases could be traced to the condition of the wound and its surroundings, and that the apparent toxicological symptoms were septic rather than those of iodine. I have seen but one case. This was in the service of a colleague. The objective symptoms closely resembled scarlatina. The skin was profusely covered with an eruption that was apt to deceive.

The subjective symptoms were not marked. The temperature was low. The predisposition is most marked in elderly subjects.

The eruption may be papular, then pustular, affecting especially the hand, face and back. It may resemble an erysipelatous blush. Sometimes bullæ, ecthyma, or anomalous pustules are present, also petechiæ and purpura.

The constitutional symptoms are rise of temperature, which is usually high, headache, loss of appetite, rapid pulse, and low tension of vessels. Profound depression may occur, and death takes place in collapse. Others may develop marked mania, and in some melancholia is a symptom. There is no antidote for this condition. The drug must be discontinued. Reliance must be placed in stimulants and diluents to promote the secretions. Arsenic has a beneficial effect on the skin in these cases.

The value of this drug is indisputable, and it ranks first of all in the dry powder dressings. It promotes union, prevents the tendency to heat, redness, swelling and pain. The secretions are modified in quantity and character, being serous rather than purulent. It is claimed by some to have an irritant effect. I have not seen this myself, but rather the reverse, a distinct analgesic action. It is also claimed that where large surfaces have to be filled by granulations it does not act quite as well. Experience does not show this. It is rather due to faulty technique. Where secretions are present, then an absence of iodoform is found; this shows that its renewal is demanded to accomplish the anti-putrefactive action.

The most efficient way is to apply it directly to the wound in sufficient quantity. This gives better results than the use of iodoform gauze, which is indefinite in quantity. It is best laid on by a sprinkler, which applies it more evenly. It is important in the treatment of open wounds that, after thorough cleansing of the surface, the iodoform must come in contact with every portion of the wound; if not, it is possible that a certain amount of putrefactive change may occur.

This explains, possibly, why the treatment of pus cavities does not, at times, give prompt results; it is in the impossibility of getting the iodoform into complete contact with every burrowing sinus.

For superficial wounds, and, in fact, for those of more importance, iodoform in collodion 1-10 is an exceedingly good dressing. This is based on the fact that there is little serous exudation expected, and that the wound surface is perfectly clean; then close coaptation prevents the exudation of serum to any extent.

Iodoform in ether injected into pus cavities after cleansing is followed in many cases by prompt recovery. This is somewhat painful, and to obviate this glycerine has been substituted for the ether.

Iodol.—The disagreeableness of iodoform caused chemists to look for a substitute which possessed the active principle, with a lessening of its disadvantages. This was found in iodol. It is a grayish-white powder, which darkens by age. It contains 85.90 per cent. of iodine; this is less than that of iodoform, which has 96 per cent. It has an advantage which compensates, in that it gives off the iodine more freely.

It is antiseptic, deodorant, and anæsthetic. It has a slight escharotic action, forming a crust, which aids in protecting the parts. Notwithstanding these qualities, it has not succeeded in displacing iodoform.

The clinical results have been good, still but little is used, comparatively, instead of iodoform. It is

soluble in alcohol, chloroform, and ether; but slightly soluble in water. It is generally used in powder; but can be applied in solution, in collodion, and as a gauze.

As a solution:—

Iodol.....	3ss.
Spt. vini, dil.....	3i.
Glycerini.....	3j 3vj.
Aq. destil.....	3ij 3j.

As a gauze:—

Iodol,	
Chloroformi.....	āā gr. xlv.
Glycerini.....	3j 3vj.
Spt. vin. dil.....	3iiss.
Aq. destil.....	3ij 3j.

The gauze is to be impregnated with this solution.

As a collodion:—

Iodol.....	3iiss.
Spt. vini, dil.....	3iv 3vj.
Pyroxylin.....	3j 3vj.
Ol. ricini.....	3j 3vj.
Ether sulph.....	3ij gr. xv.

Salicylic Acid.—This acid crystallizes in needle-shaped form. It has no odor. It is soluble in alcohol, ether, and in hot, but not cold water. Its solubility in cold water is increased by neutral salts. By the addition of 8 parts of boracic acid, 10 parts of the salicylic acid can be dissolved in 100 parts of water. The boracic acid should be dissolved in hot water, then the salicylic acid added to the hot solution. It must be filtered when cool to remove undissolved crystals.

It was introduced into surgery by Thiersch, of Leipzig, as a substitute for carbolic acid. It was thought to have as efficient germicidal action as carbolic acid; but experience has not sustained this. It has the advantage of not being offensive or irritating. Its germicidal strength is 1-200. It can be used dry with very good results; but on wounds that are expected to heal by first intention it is contra-indicated, as it interferes with coaptation mechanically. It has the disadvantage of not adhering firmly to the parts; therefore, if much secretion is present, it is liable to be washed away, leaving parts of wound surface exposed.

Cavities packed with it, and then covered with salicylic cotton may remain as long as one or two weeks without decomposition taking place. It has not given any toxic effects.

It has been used with very happy results in cancer, gangrenous and sloughing wounds; it is used dry, covering the surface entirely.

Salicylated cotton is made in two strengths, 4 and 10 per cent. As alcohol takes up salicylic acid in large quantities, this is used diluted as the menstruum to charge the cotton; a certain proportion of glycerine is added to retain the acid, and keep it from shaking out. To make a 10 per cent. strength take:

Glycerine.....	2 parts by weight.
Water.....	100 " " "
Alcohol.....	20 " " "
Salicylic acid.....	2 " " "
Absorbent cotton.....	20 " " "

After the acid is dissolved by gentle heat, the cotton should be laid flat in the dish, layer on layer; after ten minutes it should be removed, laid flat, and dried in a warm room. To increase its antiseptic action it should be dipped in a 10 per cent. solution of the acid in glycerine, then applied.

It has been used largely in the antiseptic treatment of burns. The burn is washed in carbolic acid, and then covered with salicylic cotton. This is an excellent method of treating this injury; less pain, swelling, and less tendency to evil cicatrization than by the older methods. It also obviates the distress due to frequent handling.

Neudorfer says "That it caused intense burning in sensitive patients, lasting from five minutes to two hours." To overcome this, he combined oxide of zinc, 3 parts, with 1 of acid.

Boracic Acid.—This comes in glittering, scaly crystals. It is soluble in 26 parts of cold and 3 parts of warm water, and freely in alcohol.

It has been highly praised as an antiseptic and deodorant. It arrests putrefactive and fermentative changes; it is non-irritant and non-toxic, and has the advantage of being very cheap. It has an important place in Lister's method, who considers it as effective as carbolic acid, with none of its disadvantages. It is also less irritating to the skin than salicylic acid. It can be used in saturated solution on lint to fresh wounds, or to arrest decomposition in gangrenous, sloughing, or ill-conditioned surfaces. Its most effective use is in the form of boracic acid lint. The lint or cotton is made by steeping either in a hot saturated solution; this, when dried, is about double its former weight. It contains about 15 per cent. of the acid, which is a very desirable strength. The acid is intimately incorporated with the substance of the fiber, and is free from loose particles of the crystals.

Mr. Lister's directions for applying the boracic acid dressing to ulcers is as follows: "Clean the sore and surrounding skin thoroughly. This is done by using freely on the sore a solution of chloride of zinc, gr. xl to f3j of water, and then washing the skin with a strong watery solution of carbolic acid, which is used on account of its remarkable power of penetrating the epidermis. This step having taken place, the boracic dressing is applied. A piece of oiled silk protective, of sufficient size to cover the sore and slightly overlap the surrounding skin, is dipped in a saturated boracic acid solution and applied; over this a piece of boracic lint, large enough to extend for an inch or more beyond the protective on all sides, this is retained in place by a bandage."

He has also advised it in rodent ulcer. He combines boracic acid and white wax, each 1 part; paraffine and almond oil, each 2 parts. The boracic acid and oil are added to the melted wax and paraffine, and the whole stirred in a mortar until it thickens, then set aside until it cools, after which it is rubbed in the mortar until it acquires the consistency of an ointment. This is thinly spread on a fine rag, and is applied to the wound. The oil separates and is absorbed by the lint placed over the dressing, while a firm plaster remains, attached to the skin, which is easily removed, if necessary.

Its use in purulent discharges of the ear is well known.

It may be used in all the various forms and combinations in which carbolic acid and salicylic acids are used as antiseptics.

It is a part of Thiersch's solution, the "boro-salicylic lotion." This consists of salicylic acid 2, boracic acid 12, and hot water 1,000 parts.

It is non-toxic and bland. It can be used in the abdominal cavity, if desirable, without injury. It is used in cavities where toxic effects are feared from retention. Wounds should finally be washed with a bichloride solution before they are closed.

The Double Cyanide.—This combination of Lister is meeting with considerable favor. It is composed of cyanide of potassium, cyanide of mercury, and sulphate of zinc, mixed in solution, in quantities proportioned to their atomic weight, precipitated and further prepared. It is non-irritating to the skin, and, being non-soluble, is not washed out by the secretions.

When employed for charging a dressing, it is diffused by means of a pestle and mortar in a solution of mercury (1-4,000), in sufficient abundance to drench the fabric thoroughly, for which 4 imperial pints to 100 grains of the salt will be found adequate. This will give a per cent. of between 2 and 3 of the cyanide to the dry gauze. The gauze should always be used moist; and, if it be prepared for immediate use, the process of drying may be omitted. It can be kept moist by wrapping it in a piece of mackintosh or wax paper. If got from the manufacturers, it should be wet again with the bichloride solution.

Prof. Dunstan, of London, has prepared this compound in a more definite manner. It now contains double the quantity of the cyanide of mercury. Lister feels confident of the value of this compound as an antiseptic dressing.

Bismuth.—The subnitrate of bismuth is used as an antiseptic dressing. It has a limiting power over secretions, combined with its antiseptic qualities. Its special field is in its application to fresh wounds. It has little value over the adjacent surface. It can be made into a watery solution, and then applied to the surfaces. Exudation ceases in twelve to thirty-six hours; the wound is then closed, without any need for drainage. It can be dusted over small surfaces, and soon combines with the secretions and forms a paste; this usually answers without further dressing.

If the secretions still persist, the bismuth is dusted on frequently until the discharge stops.

It can be used by dipping gauze into a 10 per cent. mixture of bismuth, then the moist gauze is applied, covered with cotton, and some impervious dressing over all.

If used in unlimited quantities, it will give its toxic effect, characterized by acute stomatitis.

The salicylate of bismuth has been used as an antiseptic.

MATERIAL.

Gauze.—There are two ways of keeping a wound aseptic:

1. The dry method.
2. The moist method.

It is necessary, to keep wounds in this condition, that certain antiseptics shall be combined with some material, so that anything in contact with the surface will lose its power to injure. The best material to use for this purpose is what is known in the shops as cheese cloth. It is a soft, meshy, and inexpensive material, and, when deprived of the oil it contains, has the property of rapid absorption.

Twenty-five yards are boiled, for at least an hour, in a vessel filled with sufficient water to cover the material. To this is added two pounds of washing soda. It is then washed thoroughly in cold water, and run through a wringer. It is now ready for impregnation by any antiseptic desired.

Corrosive sublimate gauze is made by taking the wet gauze and immersing it in a sufficient quantity of corrosive sublimate solution, 1-1,000, for twenty-four hours, then run through a wringer, dried and put in sealed jars until used. This can be folded in such a manner that it can be cut to any size required.

This gauze ranks highest of all the antiseptic dressings; it can be used either dry or moist. If it has been made any length of time it had better be reimmersed in a 1-1,000 bichloride solution before using.

The dry method: Chemical sterilization with exsiccation.

After the operation is finished, and the patient carefully cleaned of all blood or other discharges, the gauze is applied to the parts. No mackintosh or other impervious material is used; the object is that every particle of moisture shall be readily taken up, the surface kept dry, and the exudates, being sterilized, will then rapidly exsicate and give further protection. A few layers of iodoformized gauze laid first on the line of incision will hasten the drying, especially if there has been much secretion.

The moist dressing is applied where it is desirable to keep the parts moist; where it is thought that inspissation may take place and the drains fill up and interfere with their object. The gauze is then wet in 1 1,000—1 2,000 bichloride solution, wrung out and applied; over this is placed a piece of mackintosh or wax paper; this prevents evaporation and the dressing will keep moist for a long period.

Mackintosh can be substituted by rubber-tissue; wax paper is excellent; in fact, the ordinary wrapping paper will answer the purpose. If these are not used, then the dressings will have to be kept wet by instilling into them carbolic acid or mercurial lotion. The preference should be given to the bichloride 1-3,000. I have seen very good results from this treatment, not only in closed wounds but in those where healing was by the process of granulation. The use of bichloride either dry or moist sometimes sets up an angry dermatitis; this modifies very readily. The gauze can then be diluted to the desired strength by washing in boiled water, or substitution of other dressings can be made; cosmoline or any bland ointment will soon cause the inflammation to abate.

Iodoform gauze is made by taking the moist gauze and working iodoform into the meshes. The loose gauze is placed in a clean basin and the iodoform sprinkled over and rubbed into it with the hand until it is uniformly yellow; the excess is then shaken off. The gauze will then contain 10 to 20 per cent. An ounce of iodoform ought to impregnate four or five yards. This dressing can be used anywhere except in the mouth.

Lister wisely condemns the use of sterilized gauze in place of that which is antiseptic by means of the drug therein contained. The ground he takes is good; a dressing must be of such a character that if the discharges impregnate it they should be rendered harmless by means of the antiseptic contained in its substance.

Sponges.—One of the simplest and most effective methods of preparing sponges is that suggested by Dr. H. A. Kelly.

Sponges costing about two cents apiece by the pound answer all purposes.

They are first laid in a cloth and pounded lightly to break up, loosen and remove the coarser grit. They are next immersed in a solution of hydrochloric acid (commercial), one drachm to the pint, and left twenty-four hours. They are taken from this and washed until they no longer give the water a yellowish color; they are carefully handled all this time to separate all lumps and spicula which can be detected by eyes or fingers. They are next transferred to 1-1,000 bichloride solution for twelve hours, and from this transferred to a 3 per cent. watery solution of carbolic acid for preservation.

Sponges once made aseptic can be used after operations if they are freed from fibrine. This can be accomplished by thoroughly washing with green soap, rinsing them, and then immersing in a 5 per cent. carbolic acid solution.

Catgut.—This is bought in the raw state from the dealer, and can be prepared by immersion in oil of juniper wood for twenty-four hours, then transferred to alcohol, 95 per cent., for preservation; or, it is first immersed in a watery bichloride solution for twenty minutes, then placed in alcohol, 95 per cent., for one hour. It is then laid in oil of juniper for forty-eight hours, and transferred back to alcohol for preservation. The first method has given good and safe results. The second has the advantage of combination with the bichloride, but it has a tendency to make the gut brittle. Either method will so prepare it that it will stand the action of the fluids a sufficient length of time to allow of permanent results.

The finest work, especially that on the intestine, can be done by No. 0, and if well prepared, I know by experience it will resist the action of the secretions of the peritoneum. No. 1 is the most common size, and more of this should be kept on hand than of the other. No. 4 will tie the most massive pedicle. The surgeon's knot should always be used in tying.

Silk.—Silk for ligatures and sutures is prepared by separating the strands and then laying it in boiling water for an hour. Some surgeons advise transferring it to bichloride solution, 1-3,000, for from three to five hours, then to be kept in alcohol. If thoroughly boiled it is rendered aseptic, and when transferred to alcohol is safe to use. The bichloride no doubt insures the asepticism by its presence. The size of silk is governed by the operation.

For abdominal surgery 1 to 4 twisted silk is the proper size, but to-day, in ordinary work, catgut has almost superseded the use of silk. Abdominal surgeons do not place confidence in catgut for the work on the female generative organs, but use aseptic silk, being safer in tying a firm knot and with no liability of too early absorption.

INSTRUMENTS.

The instruments should have smooth and polished surfaces; grooved and roughened handles are hard to clean. They should be well scrubbed to rid them of any dirt or blood.

For sterilizing the instruments, boiling is the best means possible. If convenient it should be done in a special sterilizer, if not, any tin vessel will serve the purpose. They should be boiled in a 1 per cent. solution of carbonate of soda. The soda is to prevent discoloration of the instruments, and does not dull the knife edge, which always occurs when plain water is used.

The instruments can be taken out, wiped on aseptic gauze, and used immediately; or, if they are to be used away from the hospital, after boiling, they can be dried by heat in the oven and then wrapped in aseptic gauze or towels.

Before using they must be placed in the pans and covered either with distilled water or carbolic acid 1 to 20, half an hour before the operation. When they come in contact with any septic matter they should either be discarded or dipped into boiling soda solution for a few seconds, which will sterilize them.

The proper instruments should be got ready for every case, having no more than necessary, as useless instruments interfere with expedition. These are to be placed in proper pans, and so arranged as to be readily reached by assistant or operator. In ope-

rations in which the technique is more or less definite the needles should be threaded and stuck in rolls of gauze, so that less time will be lost. This is especially advantageous in operations on the intestines, where time is so valuable.

CLEANSING OF PATIENT.

The patient, if time allows, is prepared for the operation twenty-four hours before. A hot bath is given, and then the region of the parts to be operated on is shaved, and for a considerable distance beyond is well and thoroughly scrubbed with potash soap, then dried by brisk rubbing with a coarse towel. The rubbing must be well done to remove the loose epidermis, and by this get rid of the germs.

Then the surface is washed with alcohol or ether, after which the parts are bathed with a 1-1,000 bichloride solution. Towels wrung out of the 1-1,000 sublimate are then wrapped around the part, and kept on until the operation. The surface is then washed by 1-1,000 sublimate solution, and the patient is ready for the operation, with a certainty that everything at the field of operation is aseptic.

PREPARATION OF PATIENT FOR OPERATION.

Tables required for the operation and for the instruments are placed in position, the one for the operation being in the most favorable light. The patient is then brought on to the table. It is necessary to so protect the wound from infection that if the hands or instruments come in contact with anything it is of an aseptic nature. The part is covered with bichloride towels, which are wrapped around and over surfaces in the neighborhood. For instance, it is an amputation of the lower third of the thigh. If it is a non-suppurative case, and time has allowed, the patient has been well bathed and scrubbed. When the patient is on the table the whole of the limb below the point of separation is wrapped in bichloride towels and fastened. The part above this is also wrapped in the same manner. The abdomen is covered over, including the arms, which are kept to the sides by this means. The other limb is also covered in its whole length in the same manner. The part to be operated on is kept wrapped up in bichloride towels until ready. Rubber cloths have been placed to keep the patient dry.

The case is then ready for operation. The towels are removed from the seat of operation, and the limb is washed again with sublimate solution. By these details, which occupy but little time, the patient is protected, beyond doubt, from infective contact. If failure in any sense follows, there is a positive fault somewhere.

An amputation through a septic point requires a preparatory treatment, for sometimes previous; as the cleansing out of sinuses, removal of necrosed tissue, and the placing of the parts in as aseptic a condition as possible. This may require some days to accomplish, then the case is ready, the final care in protecting being the same as in the former.

This method of protection is applicable in the same manner to all other parts. The object attempted is to keep hands or instruments from being contaminated.

THE OPERATOR.

There is no more particular part of the technique of aseptic surgery than cleanness of the operator.

After the patient has been prepared, and instruments sterilized, it is his duty to so clean his hands that they may not be the source of infection in the wound. The nails should be kept short. The hands should

be well scrubbed with a stiff brush and potash soap until every particle of dirt is removed, taking care to clean beneath the nails, for here it is that the most infection lies. Do not clean the nails after with any instrument, it only disturbs the epiderm, and probably loosens up some hidden danger. The hands and arms should then be washed in bichloride solution for at least two minutes. Some operators advise the placing of the hands in a solution of permanganate of potash, then into the bichloride. The utmost care should be taken not to touch anything that has not been rendered aseptic; but if it should happen the hands must be immediately sterilized. It is astonishing how this is overlooked. There is no doubt that many an operation has been defective through this means, and the reason sought elsewhere in vain. In all operations the shirt sleeves should be rolled up beneath the linen coat, if one is worn; over this a clean linen apron, covering the whole front, should be placed. The operator should be particular in watching his assistants to see that they are as careful in their toilet as he is; on such, apparently minor points, the success of the operation frequently depends. A properly trained nurse is a prize, and is invaluable in assisting, and when possible should never be dispensed with.

IRRIGATION.

The irrigator may be any vessel that is efficient. It is placed at such a height that the stream will have force enough to wash the surface of the wound, sinus or cavity, free of any discharge. The flow can be controlled by pressure on the tube. The irrigator should be used in preference to sponges. Its proper application will keep the surface perfectly clean and limit capillary hemorrhage.

APPLICATION OF LIGATURES.

To-day catgut is universally used. The vessels are simply tied and the ends cut short, yet not so close that the ends will untie when the ligature begins to expand. It is not wise to exert the amount of strength in tying an artery as is usually shown. It does not require very much force to rupture the internal coats of the artery. The rupturing of the internal coat is an open question, yet it is wise to secure the vessel firmly. Do not, when tying the ligature, take hold of the catgut at a distance from the vessel. This is apt to result in the breaking of the ligature and possible injury to the vessel at some other point. The thumbs ought to be placed back to back, then the tying can be done without jar or break. Torsion is not as safe, in any condition, as the ligature, and should never be used. When aseptic surgery was unknown it may have had advantages over the ligature in the non-supuration of the vessel.

SUTURING.

Care in suturing cannot be too much impressed on the operator, for on this depends, to a great extent, the prevention of possible infection from the outside. Some authorities say if the wound surface is thoroughly aseptic, and close coaptation has been made of the skin surface, that it makes little difference what antiseptic is used on the surface, and this is why many operators have such wonderful results when antiseptics of low grade are used. This is instanced in removing the dressing after an operation, where the skin has been closely coapted, we find the dressing absolutely free from any stain, the iodoform unchanged, which we know takes place as soon as the exudates come in contact with it, and the line of union shows no irritation, and when examined closely there is no

pouting tissue found standing up between the skin edges. There has been no opportunity for exudation; clean work, and neat union of superimposing layers have prevented by their contact any opportunity for this to occur.

Primary union with a linear cicatrix is the ideal healing of an aseptic wound. The sutures vary under modifying circumstances. In tissues of equal thickness the suture must be placed at an equal distance in each lip to bring the edges together; this is best done by compressing the edges of the incision between the thumb and index finger, so that both edges are on a line. A slight eversion of the edges when passing the sutures through will be more apt to bring the skin surfaces in contact, and prevent both eversion and inversion. Then when the suture is being tied the assistant must, if there should be any eversion, press the everted tissues into the incision with the scissors, which he has charge of, until the knot is just taut enough, when they should be removed. If there is no assistant the operator must mould the tissue into place with his fingers as he brings the loop tight; this is easily done. It is the assistant's place, when the incision is large, to hold the edges together while the sutures are being passed; he not only does this, but supports the tissues and prevents dragging. The sutures can be tied as they are entered, or all finished together. If many sutures are to be used, and it is not desirable to tie them as they are placed, as in abdominal work, each suture can be caught together, and held by a pair of hæmostats. This keeps them from being drawn out.

The first loop should be twisted around twice, as the surgeon's knot calls for; this prevents slipping. If there is any tendency of this loop to slip, it can be made to hold by "jamming" the first knot into the angle of the suture, next to the operator, by a slight jerk made on the distal end of the thread while the mesial end is held on the stretch.

If support is necessary where there has been loss of integument, or where there will be considerable strain, supporting or retentive sutures should be used. When this is necessary these sutures should be passed two or more, according to the size of the wound. They should be entered well back, and then the tissues pushed forward by the assistant as they are being tied. The close coaptating sutures are then passed in between them sufficient to bring the edges together. It must not be overlooked, that if too much tissue is lost, it is not wise to coaptate the surfaces by force. They should be brought together as close as it is safe, and then the balance allowed to heal by granulation. If too much tension is exerted serious results will be sure to occur by depriving the parts of sufficient blood.

The continuous suture is not used to the same extent as formerly. It has no advantage over the interrupted, and coaptation cannot be as carefully made. In extensive wounds the sutures will give closer coaptation if the first one is introduced in the middle.

After a large experience in intestinal surgery I have found that the interrupted suture can be as rapidly applied as the continuous, and gives better results. The continuous suture has been advised over the interrupted, on account of tension, the same has been said of the mattress suture. This is entirely wrong, there is no tension on the intestine at the point of operation, the injury, either by accident or design, always producing paralysis of the intestine at the place of injury; therefore, as gas and faecal mat-

ter cannot pass through the paralyzed portion, from loss of peristalsis, tension is not a factor.

Silk-worm gut is a valuable suture in every case where wire is used. It is smooth, does not kink, can be tied easily, or secured with shot, does not irritate, can remain indefinitely, as absorption is exceedingly slight, and is easily removed. For abdominal incisions no better suture can be used.

DRAINAGE.

The aim of the aseptic surgeon is to devise some antiseptic or means whereby drainage can be dispensed with; this will be the ideal aseptic wound; but as this has not been attained, this important factor in wound healing cannot be overlooked. It is as important as the primary cleansing. The abundant serous exudation, which takes place, as the result of the hyperemia due to the injury inflicted, bathes the parts, and if the deeper portion of the wound is not firmly coaptated in conjunction with the skin surface, then distention, with separation, must take place as a result of this retention. Not only is the tension an objectionable feature, but there are retained fluids that form a good pabulum for the development of micro-organisms.

The spontaneous escape of these fluids, as fast as they arise, can be accomplished by proper drainage.

The necessity for drainage can be lessened by the careful manipulation of the wound. Care in operating to injure the tissues as little as possible, perfect cleansing, complete hæmostasis, the expressing out of all fluids contained by gentle manipulation, perfect coaptation of the whole surface, firm, still, gentle compression (if this is properly applied it is a wonderful adjunct). Then proper dressings, and not too frequent change.

The materials and instruments for drainage are capillary and tubular.

Capillary drainage will not remove pus; but is useful to remove the primary secretion, which is serous in nature. They should be fine and not readily absorbed, or of such structure as are not influenced.

Catgut properly prepared makes a good drain, and has the advantage of being gradually absorbed, does not interfere with primary union, or necessitate the removal of the dressings.

The juniper gut makes a very reliable drain for ordinary wounds; but if there is any uncertainty chromicized gut can be used instead. This is prepared by immersion in a solution of:

Chromic acid.....	1 part.
Water.....	4,000 "
Carbolic acid.....	200 "

Enough catgut should be taken to equal in weight the carbolic acid; it should remain in this solution forty-eight hours, then be dried and placed in carbolic oil 1 to 5.

In making a drain, a sufficient number of strands are taken, according to the size of the wound, and placed in the bottom of the incision, brought out at the ends, and then tied in a knot to prevent being pulled out. If multiple points of drainage are thought advisable, the method suggested by Chiene can be used. "Take a skein of catgut containing, say, twenty threads, and tie it at its middle by a single catgut thread. One end of the thread is passed through a curved needle, and by means of this the center of the skein is stitched to the deepest part of the wound. The skein is now broken up into bundles of five threads each, one bundle comes out at each angle of the incision, and the other bundles at intervals between the stitches."

If there is a possibility that the drainage may be persistent for some days, it would not be wise to depend on the gut.

Horse hair is an effective drain, easily obtained, prepared, and non irritant. It should be first washed in an alkaline solution, then kept in a watery 5 per cent. solution of carbolic acid. It is to be laid in bundles at the place desired. A good way of using it is to fold a strand on itself and fasten the hairs together by winding a single hair around them in a spiral manner. The convex looped end is introduced into the wound. As it becomes necessary to lessen the size of the drain, successive hairs are withdrawn.

As pus cannot be removed by capillary drains, it is necessary that a more effective means be used. Chassaigne introduced the rubber tube for this purpose. It is flexible, and comparatively unirritating. The size varies as the wound, from $\frac{1}{8}$ of an inch upward. Black rubber is objected to on account of the sulphur contained in it being liable to form sulphuretted hydrogen; red tubing has been advised in its place. The tubes are made any length, and fenestrated for the passage of fluid. These openings can be made by bending the tube sharply on itself and cutting the angle. As the tubes act as foreign bodies, they should be removed as soon as the secretions change in character and quantity, or the cavity becomes obliterated.

For draining large and deep-seated abscesses, an efficient method is suggested by Gerster: "A number of fenestra are cut into the sides of a large-calibered tube, which is placed well within the cavity. Another, smaller-sized tube, of the same length, is provided with a couple of fenestra near its mesial end, and is inserted into the abscess alongside of the larger tube. A stream of lotion injected into the smaller tube will enter the bottom of the abscess, will wash out its recesses, and will carry away secretions and *débris* through the many fenestra of the larger tube."

Absorbable tubes have been used. They are made out of sound ox or horse bone, turned in a lathe, bored, and then decalcified in a mixture of 1 part of hydrochloric acid to 10 parts of water. Ten hours will decalcify them. They are well washed, to clear them of acid, and then placed in a 5 per cent. carbolic acid solution. They soften in six to seven days, and fill with lymph. The femora of chickens have been used in place of the expensive manufactured drains.

These drains are apt to collapse when softened, and defeat the object intended.

Glass drains have been used in general surgery, but are now mostly confined to abdominal work. The large tube formerly used in this special branch of surgery has given place to smaller sizes, and instead of being fenestrated with large holes, they are perforated with fine openings; this prevents the entrance of omentum or bowel. This tube must be frequently emptied—at least every two hours—to prevent secondary trouble. The drainage of the abdomen has been an important advance in technique.

These various means, to be effective, must be well applied; if not, their object is defeated, and the consequences further increased by their presence.

The drainage tube should not be used in the following cases:

In the open wound treatment.

In cavity wounds which can be thoroughly tamponed, and thus converted—practically converted—into an open wound.

In case of flat wounds, where the dressing can soak up the secretions and carry them off.

In cases where the intention is to bring the edges together only after the lapse of one to three days.

APPLICATION OF DRESSING.

Supposing that the operation is finished, we will proceed to dress our wound. If the wound is only slight, especially if it is on the face, no better application can be made than the iodoform collodion, 1 to 10. This is allowed to fall off itself, by which time the wound is completely healed.

The dressings are modified by the character of the operation; if, for instance, there is loss of the deeper tissues, as in an amputation of the breasts, then the dressings must be so applied that they not only protect the wound from infection, but give support, bringing the parts into coaptation, and preventing exudation. After the drainage-tube or catgut drains are put in position, being so arranged as to make the exit of fluid easy, the sutures are applied—retention sutures, if necessary.

The drainage-tube, after thorough drainage through it, is then cut short, and secured from being dragged out by passing safety pins through the ends. The parts are then gently compressed, to force out all liquids. The surrounding surface is well cleansed and dried; all wet towels are removed and clean ones substituted, to keep the dressings from being soiled. Iodoform, or any of the other antiseptics, is dusted over the incision. The protective is applied if the operator desires, but this is not required if a perfectly dry dressing is used, and its results expected. The advantage from ease of removal of the dressing where the protective is used, is counterbalanced by the dessicated condition of the wound in the other. Iodoform gauze is used directly on the surface by some operators, but is not a necessity where the iodoform has been applied. It is applied in flat layers; or crumpled up, which is decidedly the best, by exposing a greater absorbing and antisepticizing surface to the wound. If iodoform gauze is not desirable, the bichloride can be applied in the same manner. When the former is used, we then place over this a mass of crumpled bichloride gauze; but before applying it over the iodoform gauze, it is best to take pads of some thickness and so place them around the incision that they will make compression on the skin flaps and bring them in apposition with the underlying surface; this not only prevents exudation, but expedites union. Over the crumpled gauze is placed sterilized absorbent cotton. Of course, special care should be taken that masses of the crumpled dressing surround the drainage-tubes.

Then bichloride bandages—or muslin, if desired—are applied, to maintain dressings and give support. The arm is then placed by the side and secured, or placed in a sling.

This is a typical dressing of a grave operation by the dry method. The moist dressing has been described. It is the application of moist instead of dry dressings, kept moist by impervious covering.

When shall we remove the dressing? This is governed by the secretions, fever and pain. The exudation may be so great, soiling the dressing to such an extent that they may have to be removed inside of twenty-four hours, but if this does not occur, and there is no fever or pain present, the dressing should not be removed for eight or ten days. The presence of the drainage tube necessitates removal at an earlier period.

The removal of the dressings should be done with as much care as the placing in position. The new dressings should be got ready, clean tins at hand, the

irrigator filled with warm bichloride solution, scissors, forceps, grooved director, drainage tubes, and pads of cotton or sponges. This is to prevent contamination, loss of time and distress to patient. The bandages should be cut through gently, so that no jar will occur. The superficial dressings removed, the irrigator is used to soften the deeper dressings, so that they can be removed without injury to the part. All secretions and soiling is carefully removed, the surface irrigated, and drainage tubes removed and changed if necessary. The surgeon's hands are again cleansed before he examines the wound. If the edges are not irritated, inflamed and reddened, but look pale, with no œdema, then it should be redressed in the same manner as at first. This, probably, will be the last dressing.

The dressing of an open wound is of a different nature. We will take a similar case, but when by certain reasons there is loss of skin sufficient to prevent bringing the edges in contact in its entirety, the angles of the wound are brought together as far along its length as can be done without too much tension. We have a surface of greater or less extent uncovered. This has to heal by granulation. Iodoform is well dusted over the surface. The drains have been applied to the deeper portions of the wound. Iodoform or bichloride gauze is packed into the open part of the wound, being careful that every portion of the surface is in contact with the iodoform, then over this packing loose gauze is thickly placed, then sterilized cotton on top. Compression is made over that part of the wound which is covered with flaps.

Some operators advise placing over the gauze an impervious covering. This is advantageous. The dressing is of a moist nature and facilitates absorption.

When tissues of low vitality, such as bone, fasciæ and tendon, are exposed to evaporation, necrosis is very apt to occur. This can be prevented by placing directly over the wound a piece of protective dipped into a carbolic acid solution, and on this an ample bichloride dressing.

This is the method suggested by Schede to utilize blood clots to fill up surfaces that cannot be covered. This is presupposing the wound to be aseptic. It protects the surface beneath it. This is possible, providing the blood is kept aseptic and prevented from becoming exsiccated. If this is perfect, granulation will gradually take the place of the clot and cicatrization is complete.

Operations involving the osseous tissues, as amputations and exsections, require the dressings to remain as long as possible. In resections of the knee, where osseous union is looked for, the dressings are not changed for thirty to forty days.

Another wound that requires the moist dressing is the septic wound. This is an open wound. Its character varies according to tissue. There is gaping, pus is present, the lips are swollen and covered with a coating which indicates superficial or deep necrosis. The wound is thoroughly irrigated, all sinuses are incised and cleaned, then the surface is dusted with iodoform and packed with bichloride gauze, over this is applied a moist dressing, then an impervious covering. This will drain it completely; frequent dressings are required, lessened as the discharges decrease. This dressing lessens the fever and pain.

One of the most common injuries that come into the average practice, is that of contused or lacerated wounds. These are at times very severe in extent and amount of destruction of the tissues, both soft and osseous. The prime object in the treatment of these cases is the saving of the part. This is often sur-

prising, and it has been repeatedly proven to me that it is unwise to remove any tissue as long as it has the semblance of vitality. The end attained is twofold, not only do you win the gratitude and confidence of your patient by suggesting a conservative plan, but you have the intense satisfaction in knowing that you save to him a member, or part of the same. A careful examination should be made of the injury, under ether if necessary; every particle of dirt must be removed. Use bichloride solution, either from an irrigator or a large syringe; do not use sponges to irritate the already injured tissue. Save every particle of soft tissue that shows any vitality. If the osseous tissues are fractured, do not remove any; endeavor to replace them, bringing to them every shred of periosteum; having got every part clean, put in your drains, if required, catgut preferably, then bring into apposition all shreds of tissue, tendon, muscle and skin, with catgut sutures. If blood clots form after cleansing they must not be removed; dust iodoform freely over the surface, then apply your crumpled gauze. I have used both the moist and dry, and give the preference to the latter procedure. The dressings are changed according to the secretions and pain.

It is understood if an injury is of such a character that amputation is a question, it will have to lie on the surgeon's judgment, as no iron-clad rules can be given, yet the conservative treatment is all-wise. This conservative method is applicable principally to hands and feet.

The Polyclinic.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Reported by J. T. TAYLOR, M.D.

PROF. BRINTON says: The bladder can be washed out without the use of a catheter, by attaching a long tube to the vessel containing the solution, inserting the end of the tube in the urethra, then elevating the vessel several feet above the patient. The fluid will run, by gravitation, into the bladder, then by lowering the vessel and inverting it the fluid can be syphoned out.

Prof. Parvin, in treating parenchymatous metritis, directs the use of ergot, nux vomica, hot or cold water injection, absolute rest, tampons of iodine and glycerine, or injections of creolin; in injecting creolin, always begin with a half per cent. solution, especially when injecting it in the bladder.

For seborrhœa, Dr. Cantrell recommends tinctura saponis viridis f3j—f3j; make a lather or shampoo of this and rub thoroughly into the scalp, then wash and apply:

R.—Acid. carbolicæ gr. xx.
Acid. salicylicæ gr. xxx.
Ol. olivæ f3j.

Dr. Cohen says that after the operation for the removal of nasal polypi there is no better application than:

R.—Ext. hamamelis. 3j.
Aque destillatæ 3ij.

In his lecture to the class on sprains, Prof. Brinton said the indications in the treatment were to:

1. Control the inflammation.
2. Get rid of the effusion.
3. Recover motion.

Apply dressings of lead-water and laudanum or evaporating lotions. Immerse the injured part in hot water, as hot as the patient can bear. An important point in the treatment of sprains is pressure either made by applying a bandage, or a permanent dressing, and in case of irritability of a joint from a sprain, a silicate of sodium dressing makes an excellent application.

Dr. Wirgman, in prescribing for a patient with rheumatoid arthritis, after ordering salicylate of lithium, gr. x. three times a day, gave the following ointment :

R.—Ung. iodi comp..... f3j.
Ext. belladonnæ aq..... f3iij.
Ext. opii aq..... ʒj.
M. ft. unguentum.
Sig.—Apply locally.

Dr. Rex, in a clinical lecture, in speaking of the antipyretic uses of antipyrin and quinine, said that antipyrin would reduce the temperature but would not keep it reduced ; while quinine would not reduce the temperature, but would hold it down ; so that he gives antipyrin to bring down the temperature, and follows this with the same quantity of quinine to keep it down.

Prof. Parvin, in speaking on the use of the forceps, said the forceps is indicated in uterine hemorrhage ; in rupture of the uterus ; in wasting diseases ; in valvular disease of the heart ; when the child's life is in danger, or the life of the mother, or both ; as a rule the os should be dilated ; the membranes must have ruptured ; the child must be alive ; the head must be in the superior strait ; apply the forceps blades to the sides of the child's head. Before applying the forceps they should be dipped in hot water, and then rubbed with creolin.

Prof. Keen presented at the clinic a woman fifty years of age suffering from scirrhus of the breast ; the tumor was hard and adherent ; the pain was slight at first, becoming severe and lancinating ; after the pain ceased it was followed by a burning sensation. The growth was small, but there was great glandular enlargement. The whole breast was removed ; the axillary space opened up and all the glands were taken out ; likewise all the surrounding adipose tissue.

Prof. Bartholow in treating a patient with paralysis agitans, prescribed chloride of barium gr. ss in pill, three times a day.

Dr. Rex, for a case of coryza in a child, advised the following plan of treatment : Place the patient in a well ventilated room, with a temperature of about 70° F. Have the patient wear warm clothing. Rub the chest with some mild rubefacient. If feverish, a foot bath or some fever mixture ; later, some expectorant mixture in which there is carbonate of ammonia or syrup of senega. He gave the following prescription :

R.—Tincturæ scillæ..... m.j.
Vini ipecac..... m.j.
Syr. tolu..... m.ʒxx.
Aquæ gaultheriæ..... f3j.
M.—S. Every two hours.

Every hour or two the patient should take some albumin water, which can be made by taking a pint of luke-warm water and dissolving in it the white of one egg.

Prof. Brinton gave the class the following as a good prescription to be given to drunkards after a debauch :

R.—Spt. ammoniæ aromat..... f3iij.
Tinct. capsici..... f3j.
Spt. lavandulæ comp..... f3ss.
Liq. soda-mint..... f3iij.
Tr. opii deodorat..... f3ss-ʒj.
M.—S. f3j every four hours.

Prof. Brinton gave the class the following, to be remembered in making a diagnosis between concussion and compression of the brain :

CONCUSSION.	COMPRESSION.
1. Incomplete insensibility.	1. Complete insensibility.
2. Partial muscular action.	2. Paralysis.
3. Special senses act partially.	3. Do not.
4. Patient can answer questions if roused.	4. Can not.
5. Pulse quick ; feeble ; often intermittent.	5. Slow and laboring.
6. Skin cold ; temperature falls to 94° or 95°.	6. Hot and perspiring ; rises to 102°-3° or 4°.
7. Respiration feeble ; quiet.	7. Labored ; stertorous ; in whiffs.
8. Nausea and vomiting.	8. None.
9. Pupils irregularly contracted.	9. Irregularly dilated.
10. Eye-lids somewhat open.	10. Irregularly closed.
11. Urine voided, fæces retained.	11. Retention of urine ; involuntary escape of fæces.

Dr. Longstreth, in treating tonsillitis, advises the use of counter-irritation, quinine, muriate of ammonia, with the addition of tinctura ferri chloridi ; the parts may be painted over with the perchloride of iron, and internally :

R.—Tinct. iodi..... gtt. j.
Potassii iodidi..... q. s.
Ammonii chloridi..... gr. v.
Mist. glycyrrh. comp..... f3ss.
Syr. simplicis..... f3j.
M.—S. Every three or four hours.

Prof. Keen advises the use of mercury immediately on making a diagnosis of syphilis. He prefers to give the protiodide of mercury, gr. ¼, three times a day, guarded with opium.

Prof. Keen recently showed the class a case of meningocele. The patient was a child three years old. The tumor was found projecting from the posterior fontanelle ; it was three inches long by about one and a quarter inches at its base. Prof. Keen decided to remove it, which was done by very carefully dissecting it out. The pedicle by which it was attached was sutured and the mass severed from it. The cranial opening, which was quite large, was partially closed with decalcified ox-bone. In this case there was no drainage employed.

Dr. Rex, in treating chorea, directs that rest in bed be imperative for not less than two weeks ; inquire into the cause and endeavor to remove it ; the patient should have a luke-warm bath every morning ; the diet should consist principally of milk ; chloral to quiet the nervous irritability ; the best remedy is arsenic, beginning with small doses of Fowler's solution, later giving the lactate or the phosphate of iron.

Prof. Keen thinks that where a diagnosis is obscure an exploratory operation should be done, for there is very little risk under the usual antiseptic precautions, and it often assists wonderfully in establishing a diagnosis.

For a severe case of burn involving both hands. I saw the case a short time after the accident. Immediately after the burn lard was applied. For a dressing I used white lead made thin with linseed oil, and painted this thickly all over the burned surface, over this was placed a thick layer of cotton and bandages applied. The dressings were frequently changed, each time painting the surface over with white lead. The result was the patient recovered in one week.

—J. T. T.

The Times and Register

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THE REJECTED CANDIDATE.

THERE is one thing that the medical student cannot be taught; and that is, that he may not be fit to engage in the practice of medicine. No matter how complete may be the demonstration of his incapacity, he stands ready to take upon himself the grave responsibilities of the physician, without a thought of commiseration for the unfortunates who may place their lives at his mercy. There is always some plausible excuse for failure to pass the examiners. They have asked "catch questions," whatever they may be; have taken an unaccountable prejudice against the candidate, or haven't given him a fair chance, etc., etc. It never seems to occur to the youth that the examiners may be right; and that ignorance and immaturity are better judged by them than by the interested person.

Out of the thousands of young physicians who begin their professional careers this spring, a few will become eminent; many will obtain a living from practice, and the majority will fail, drifting into quackery, perhaps into crime, or forced into non-professional occupations. It seems reasonable to infer that those whose business it is to teach medical students should have the best judgment as to the prospects of success in the case of each. And nobody is as much interested in this as the candidate himself. If he has studied three years and has not imbibed a fair amount of knowledge—if he has not exhibited any capacity for this particular art—he ought to know it, and save himself from further waste of time and money. But he will not believe his advisers. He will hunt about until he has found a faculty weak enough to grant him a degree. He will spend his best years in a hopeless struggle to win against the competition of men really qualified; and, finally, when he has raised himself from the grade of a bad doctor to that of a street car conductor, he may possibly remember the advice he rejected. But the chances are that he will not.

THERAPEUTIC PRINCIPLES.

IN the management of a disease due to a micro-organism, such as tuberculosis, there are two principles, and only two, upon which treatment can be founded. One is to weaken or kill the micro-organism; the other is to increase the resisting power of the tissues of the body. The use of creosote and iodoform come under the first head; while alcohol, cod-liver oil, tannic acid, forced feeding, climatic treatment, etc., come under the second. The lymph of Koch is only by a forced interpretation of words included in the former class, as this substance does not in any way injuriously affect the tubercle bacillus, but kills the tissues surrounding it. It simply performs an amputation. It sets the bacillus free; and whether this organism remains in the body or gets out is a matter over which the paratoloid exercises no sort of control. The chances are much in favor of the bacillus remaining in the body and renewing the disease. In that case nothing whatever has been gained by the use of paratoloid; but, on the contrary, there has been an instant destruction of tissues that might otherwise have occupied the invaders for some time. It is then a surrender to the enemy of every fort that he has invested. To supplement the use of paratoloid we must employ an efficient germicide to destroy the bacilli, uncovered by the destruction of their investments; and we must endeavor to fortify the body against further onslaughts. But this is just what we must do in cases treated without the paratoloid; and the results are quite as good. The conviction grows stronger that the use of this agent has been a mistake. Its very remarkable action was discovered, and straightway the wholly unwarranted inference sprang up, that because paratoloid destroys the environment of the tubercle bacilli, therefore its use would prove curative in tuberculosis. And, of course, like good sheep, we must follow the bell-wether.

PROSTITUTION IN JAPAN.

The proper way to deal with the vice of prostitution is as much a problem now as ever before. It seems to be the one sore which the skill of civilization is unable to cure. Those who believe that every occupation which the public finds difficult or impossible to direct or suppress, could successfully be taken in hand by the Government, would probably be surprised on reading the paper referred to below. Japan has tried Government supervision in the matter of prostitution since 1876, and now we read in the *Sei-i-Kwei* medical journal a long and cogent memorial to the Government, praying for the suppression of licensed prostitution. The act was passed originally to "protect" British sailors coming ashore, and included but a few cities, but finally the Government established the system in nearly all portions of the empire.

The memorialists contend that the system is not only morally wrong, but also practically a failure. It truly says that in regulating vice by license, the Government "thus gives sanction to sin, the moral

sense of the country is weakened and perverted, and fruit is borne to the nation's weakness and dishonor; and this result is already witnessed on every hand. Honored by State protection, venal love is seen in literature, in society, and even in public entertainments, and it maintains itself, made respectable by official sanction and authority. It corrupts the family life, blurs the distinction between good and evil, and, permitted, as it is, to flaunt itself in public, attracts, by its dazzling luxury, the gaze and admiration of thoughtless people. Witness the general and marked attention a prostitute receives in the street to-day when, to represent her guild, she dresses in silks and brocades and, as at the Yoshiwara or at Kyoto, parades in public."

In France, where the system of licensing prostitutes under official medical examination first began, and is still kept up, vice and disease have been found to increase disproportionately to the population. Indeed, Lecour, chief of police of Paris, after years of effort, aided by almost unlimited money, declared: "The evil must be overcome by moral, not by legislative, means." Ample statistics are cited by the petitioners to prove: That the number of unlicensed prostitutes has not been lessened; that the system corrupts morals and encourages crime, citing the fact that the ratio of criminals in the unlicensed districts is greater than that in the licensed. The system, too, is radically unjust, subjecting women to the degradation of periodical examinations, whilst men are allowed freedom to scatter disease right and left. On account of the supposed safety in such intercourse many men are led to engage in venereal excesses who would otherwise be virtuous through mere fear; but it is found that this trust is misplaced, and that the examinations are inadequate, for disease is constantly breaking out among the licensed class from twenty-four to forty-eight hours after examination. From the fact, too, that a prostitute may be the means of transmitting venereal disease without having it herself (mediate contagion), the surety afforded those who visit the licensed frail ones is by no means trustworthy.

They ask, therefore, that the act legalizing prostitution be abolished; maintaining that the only way to cope successfully with the evil is not by legal but moral measures. Educate the people, they say, to a knowledge of the laws of health. Acquaint them with the dangers inseparable to prostitution, and instead of practically encouraging, array the State against prostitution as against cholera, or any other contagious pest.

—E. B. S.

DR. L. S. MCMURTRY, of Louisville, Ky., President of the Southern Surgical and Gynecological Association, delivered two lectures before the Alumni Association of the College of Physicians and Surgeons, of Baltimore, at the College Building, cor. Calvert and Saratoga streets, on Saturday evening, April 11, at 8 o'clock, and on Monday afternoon, April 13, at 5 o'clock. Subject: The Pathology, Diagnosis, and Treatment of Ectopic Gestation.

The Medical Digest.

ANALYSIS OF THE FREQUENCY OF SYMPTOMS OCCURRING IN FIFTY CASES OF GERMAN MEASLES.—

Age.	Invasion.	Appearance of rash in.	Order of first appearance of rash.	Duration of rash.	Duration of sore throat.
No. of Cases.					
Up to 12 years.					
41					
12 to 20 "					
6					
3					
Above 20 "					
27	No invasion.				
23	Malaise.				
20	Nausea.				
3	Vomiting.				
5	Catarrh.				
13	Sore throat.				
18	Enlarged neck glands.				
1	Rigors.				
15		12 to 24 hours.			
5		24 to 36 "			
3		36 to 72 "			
1		After 3 days.			
32	Head.				
10	Body.				
1	Limbs.				
7	Simultaneously over all parts.				
23		24 hours.			
17		36 "			
9		48 "			
1		4 days.			
3		24 to 48 hours.			
0		48 to 72 "			
4		72 to 120 "			
18			Enlargement of neck glands subsequent to appearance of rash.		
38			History of pernicious attack of measles.		

This epidemic was evidently of mild type. The throat symptoms were mild in all cases. The rash appeared to be thicker and darker in proportion to age. In no case did the rash assume definitely the crescentic form seen in measles. In young fair patients, having a mild attack, the rash appeared particularly like that of scarlatina at its commencement, and was in some cases accompanied by a temperature of 103° F. One case ushered in by rigors and other severe symptoms, in which the rash did not appear for three days, remained four days and did not assume a crescentic form, may have been measles, but occurred in a house with other cases of rotheln. Enlargement of the neck glands will be seen to be a valuable diagnostic point.—Digby, *Brit. Med. Jour.*

TREATMENT OF LEAD POISONING.—To the treatment of lead poisoning I have little to add. Preventive measures are provided at all the lead factories, but the workers are frequently careless in regard to them. From the fact that during proteid digestion in the stomach less lead is dissolved, no man or woman should be allowed to engage in any work where lead is handled without first having had a good meal. I shall not deal with the measures that ought to be adopted to correct lead contaminated waters, or as to how the solvent influence of water upon lead may be avoided. To the treatment of lead colic I have but little to add—opiates and belladonna, castor oil and sulphate of magnesia, enemata, external applications and warmth are called for. Paralytic conditions improve but slowly under electrical treatment, sometimes they disappear without ever having had any electrical application at all, iodide of potassium, giving, on the whole, the best general results. If the patients are anæmic, iodide of iron will be found useful. Lithia has little influence upon the pains either in joints or muscles, but it steadily increases the amount of urine. For the attacks of acute lead encephalopathy nothing gives such good results, in my opinion, as inhalation of nitrite of amyl, the slow pulse under its influence becomes quickened, the arterial tension is reduced, and convulsions are undoubtedly warded off. In other cases, particularly where there is complete suppression of urine in addition to the convulsions, pilocarpin has been followed by most successful results.

—Oliver, *Brit. Med. Jour.*

THE PYREXIA OF PHTHISIS.—A natural question arises here: Is it advisable to reduce the pyrexia of phthisis at all? We do not thereby stop the tuberculous process; and as regards the wasting, I have shown elsewhere that pyrexia in phthisis is compatible with gain of weight, provided the diet be of a sufficiently abundant and nutritive character. In most cases the reduction of temperature is attended with a certain degree of comfort to the patient. But even to this statement there are exceptions, for occasionally patients, when the pyrexia is reduced by antifebrin or antipyrin, experience such uncomfortable sensations—chiefly of oppression—that they prefer the high fever to the effect of the antipyretic.

Two agencies which sometimes prove powerful antipyretics must be mentioned. One is confinement to bed. This I have seen by itself reduce temperature to the extent of 2° or 3° F. The other is sleep, which will reduce temperature 2° and more at a time without any medicines.

My conclusions as to the treatment of pyrexia in phthisis are:

1. The pyrexia due to tuberculization is best dealt with by derivative measures, such as counter-irritation, salines promoting secretion from other organs, and assisting expectoration.
2. That in the treatment of the pyrexia accompanying softening and excavation, measures which hasten these processes are found to be most successful, especially if combined with antiperiodics, such as quinine, salicin, salicylate of sodium, to moderate the fever.
3. That the use of medicines solely directed to lowering the temperature of the body without promoting increase in the natural secretions is generally inadvisable.
4. That our object in the treatment of phthisical pyrexia should be, not the reduction at all hazards of the temperature, but its lowering to the limits compatible with the comfort and well-being of the patients, and for this end that much may be done, in addition to the discriminating use of medicines, by the simple means of frequent food combined with stimulants and rest in bed.—Williams, *Brit. Med. Jour.*

Ptomaines.—No one can doubt the importance of the progress which has been made in the comparatively new science of bacteriology, and only the few will venture to question the value of the light which it has thrown upon the nature and treatment of disease. It is, however, becoming more generally recognized that the bacteria *per se* are only of indirect significance in considering the causation of disease; while the most direct factors are the alkaloidal bases which they produce in breaking up the complex molecules of albuminous and similar groups of bodies.

The earlier discovered nitrogenous compounds of this kind were named *ptomaines*, because they were obtained from cadaveric tissues, and it is to L. Brieger especially that we are indebted for the most exhaustive work upon these alkaloids of putrefaction, and upon those which the living cell secretes in the normal state. Their physiological action was studied by Armand Gautier, who found that some of them are exceedingly poisonous, being in this respect comparable to the venom of serpents; while others that are not directly so are capable of setting up morbid processes such as suppuration.

Almost all the ptomaines and leucomaines are diamines, and many of them, such as *cadaverine*, *saprine*, *putrescine* and *neuridine* are isomeric, but distinct in chemical and physiological properties.

Cadaverine, which is, according to Ladenburg, *penta-methylendiamine*, $\text{NH}_2(\text{CH}_2)_5\text{NH}_2$, was originally isolated as a syrupy strongly alkaline liquid, with an odor like conine, from human cadavers; it has been also obtained from putrid horse-flesh, mussels, and fish; while it seems to be a constant constituent of pure cultures of various microbes, including the bacilli of cholera and of cystinuria.

Prof. Kobert has recently made an exhaustive experimental investigation of the physiological action of *cadaverine hydrochloride*, which led him to the conclusion that the salt is much less active than the base, and that therefore, the risk of poisoning by *cadaverine* in cases of cholera, etc., may be minimized if the base can be converted into a neutral salt. On these grounds we can understand why the use of acidulated drinks has been found beneficial in the treatment of such diseases. Probably the enteroclysmata of tannin, recommended by Cantani, also owe any good effected to the formation of tannates with the bases present. Prof. Kobert also recommends the treatment of accumulations of pus by the injection of a few drops of a weak solution of some organic acid.

—*Provincial Med. Jour.*

Medical News and Miscellany.

It is proposed in France to dispose of the dead by electroplating the body, and preserving it thus indefinitely.

THE New Orleans *Medical and Surgical Journal* pitches into Dr. Joseph Jones for not freely sharing his supply of tuberculin.

WEEKLY Report of Interments in Philadelphia, from April 4 to April 11, 1891:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess of brain.....	1	2	Hemorrhage from umbilicus		1
" lung.....	2		Inanition.....		6
Alcoholism.....	1		Influenza.....	10	4
Apoplexy.....	17		Inflammation bladder.....	3	4
Aneurism of the aorta.....	1		" brain.....	4	10
Bright's disease.....	8		" bronchi.....	528	6
Burns and scalds.....	2	5	" kidneys.....		
Cancer.....	11		" larynx.....		1
Casualties.....	3	1	" liver.....	3	
Cerebro-spinal meningitis..	1		" lungs.....	35	15
Congestion of the brain.....	1	6	" peritoneum.....	3	1
" lungs.....	1	1	" pleura.....		1
" liver.....	1	1	" s. & bowels.....	2	9
Congestive chill.....	1		" veins, prostate gland.....	1	
Cholera infantum.....		3	Jaundice.....	1	1
Cirrhosis of the liver.....	3		Leucocythemia.....		1
Consumption of the lungs..	39	3	Malformation.....		1
Convulsions.....	10		Marasmus.....		12
Croup.....	11		Obstruction of the bowels..		1
Cyanosis.....	7		Old age.....	11	
Debility.....	3	2	Paralysis.....	10	
Diabetes.....	2	1	Pyemia.....		1
Diarrhoea.....	1	2	Rheumatism.....	4	
Diphtheria.....	1	7	Rupture of the uterus.....	1	
Disease of the heart.....	20	2	Scrofula.....		1
" liver.....	1		Septicemia.....	2	
" kidneys.....	1		Sore mouth.....		1
Drowned.....	1		Softening of the brain.....	2	
Dropsy, abdominal.....	1		Suffocation.....		1
Dropsy of the brain.....		2	Syphilis.....		1
" chest.....	1		Tabes mesenterica.....		1
Effusion of the brain.....		1	Teething.....		2
Emphysema.....	2		Tetanus.....	1	
Epilepsy.....	1		Trismus nascentium.....		1
Erysipelas.....	1	1	Tumor of the brain.....		1
Fatty degeneration of the heart.....	3		Tumor, abdominal.....	2	
Fever, malarial.....	1		Tumor of the thigh.....	1	
" puerperal.....	1		Uræmia.....	2	2
" remittent.....	1		Whooping cough.....		4
" scarlet.....	8		Wounds, gun-shot.....		1
" typhoid.....	10	10			
Gout.....	1		Total.....	257	178
Gangrene of the cæcum.....	1	1			
" foot.....	2				

THE NEW PHILADELPHIA is the title of a deeply interesting article which will appear in the May *Cosmopolitan*, and is from the pen of Mr. Henry C. Walsh.

KING'S JOURNAL, DIRECTORY AND BUYER'S GUIDE, 1891. For the convenience of publishers, advertisers, manufacturers, etc., etc. Compiled and edited by Ferdinand King, M.D., P. O. Box 587, New York.

J. B. LIPPINCOTT COMPANY will, beginning with April, issue quarterly thereafter a work entitled International Clinics. This work will comprise the best and most practical clinical lectures on medicine, surgery, pediatrics, gynecology, dermatology, laryngology, ophthalmology, and otology delivered in the leading medical colleges of this country, Great Britain, and Canada. These lectures have been reported by competent medical stenographers, and thoroughly revised by the professors and lecturers themselves. The object of the work is to furnish the busy practitioner and medical student with the best and most practical clinical instruction in concise form. Each volume will consist of over three hundred and fifty octavo pages, illustrated with photographic reproductions of important cases.

At a meeting of the medical staff of the Presbyterian Hospital, held April 6, 1891, the following resolutions were offered, and unanimously accepted:

Inasmuch as it has pleased our Heavenly Father to remove from our midst our personal friend and late colleague, Dr. Thomas B. Reed, it becomes us, his fellow associates in the Presbyterian Hospital, to take some action in recognition of his former position and his valued personal relations with each one of us, as well as his interested and efficient services to the Institution he so loved and served. Therefore be it

Resolved, That in his death this board has lost one of its most efficient advisers. Endowed with a strong personality,

conscientious in the performance of the simplest duty, painstaking, devotedly interested in behalf of any patient submitted to his care, thoroughly equipped by a long experience in the management of hospitals in the army, he brought to bear upon all his professional and hospital duties such qualities as are rarely associated in a single individual.

Resolved, That we tender to his family an expression of our heartfelt sympathy in this, their hour of bereavement and trial.

Upon motion, it was decided to enter these resolutions upon the minutes of the meeting, to transmit a copy to the family of Dr. Reed and to the Trustees of the Presbyterian Hospital, and to publish them in the Philadelphia medical papers.

Army, Navy & Marine Hospital Service.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ending April 4, 1891.

WYMAN, WALTER, Surgeon. To inspect Delaware Breakwater Quarantine Station. March 27, 1891.

PURVIANCE, GEORGE, Surgeon. Detailed as Chairman, Board of Examiners. April 3, 1891.

SAWTELLE, H. W., Surgeon. To proceed to Rockland, Me., on special duty. March 25, 1891.

GASSAWAY, J. M., Surgeon. Granted leave of absence for five days. April 2, 1891.

GODFREY, JOHN, Surgeon. Detailed as member, Board of Examiners. April 3, 1891.

IRWIN, FAIRFAX, Surgeon. Detailed as recorder, Board of Examiners. April 3, 1891.

PECKHAM, C. T., Passed Assistant-Surgeon. Granted leave of absence for ten days. March 26, 1891.

WASDIN, EUGENE, Passed Assistant-Surgeon. Granted leave of absence for thirty days. March 27, 1891.

STIMPSON, W. G., Assistant-Surgeon. To proceed to Charleston, S. C., for temporary duty. March 26, 1891.

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ARTHUR W. WATSON, M.D.

The Times and Register.

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NEW YORK AND PHILADELPHIA, APRIL 25, 1891.

Whole No. 659.

	PAGE		PAGE		PAGE
CLINICAL LECTURE.		A New Automatic Traction Hip Splint.		BOOK NOTICES.	
OPERATION FOR RADICAL CURE OF SCROTAL HERNIA.—TENOTOMY FOR TALIPES EQUINUS.—EPITHELIOMA OF THE LIP. By Ernest Laplace, M.D. - - - - -		Myers - - - - - 350		Electricity: Its Application in Medicine. Adams - - - - - 355	
ORIGINAL ARTICLES.		THE POLYCLINIC.		Taking Cold. Bosworth - - - - - 355	
THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D. - - - - -		MEDICO-CHIRURGICAL COLLEGE:		The Journal of Comparative Neurology. Herrick - - - - - 355	
SAL-BROMALIDE (SALICYL-BROMANILIDE). By Frank Woodbury, A.M., M.D. - - - - -		For Dysentery. Waugh - - - - - 351		THE MEDICAL DIGEST.	
TUBERCULOSIS—ITS CAUSE AND PREVENTION. By E. W. Bing, M.D., Chester, Pa. 345		For Influenzal Vertigo. Waugh - - - - - 351		Diphtheritic Paralysis. Burnett - - - - - 351	
SOCIETY NOTES.		For Cardiac Depression. Waugh - - - - - 351		Arsenic in Malaria. Bannerman - - - - - 355	
MEDICAL AND SURGICAL SOCIETY, OF BALTIMORE - - - - - 346		For Pulmonary Hyperemia. Waugh - - - - - 351		Liniment for Bruises. Whelpley - - - - - 355	
Appendicitis. Chambers - - - - - 346		The Influenza. Waugh - - - - - 351		Tellurate of Sodium in Sweating of Phthisis. Combemale - - - - - 355	
Premature Birth of Twins, One Dead, the Other Living. Streett - - - - - 347		EDITORIALS.		A Form of Gingivitis Common to Dogs and Men in India. Roberts - - - - - 355	
NEW YORK ACADEMY OF MEDICINE - - - - - 348		AND NOW, WHAT? - - - - - 352		Gonorrhoeal Inflammations. Med. Age - - - - - 356	
Excision of the Knee-joint. Phelps - - - - - 348		ANNOTATIONS.		Compound Fractures. Detroit Emergency Hosp. Rep. - - - - - 356	
Laminectomy for Pott's Disease. Lloyd - 348		Co-education of the Sexes in Medicine - - 353		Absorption of Iron. Socin - - - - - 356	
Fibro-sarcoma of the Foot. Gibney - - - 349		The Inspection of Meat for Export - - - 353		The Gynecological Larynx. Von Kleing - 356	
A Case of Lateral Curvature. Judson - - 349		Hysterical Aorta - - - - - 353		Diphtheria. Prudden - - - - - 356	
Traumatic Separation of the Right Parietal and Occipital Bones. Myers - - - 349		Dr. Hobart A. Hare Succeeds Dr. Bartholow 353		Rheumatic Flat foot. Harrington - - - 357	
Adjusted Locomotion in the Treatment of the Recovering Stage of Hip joint Disease. Taylor - - - - - 349		Dr. Baldy's Election - - - - - 353		MEDICAL NEWS AND MISCELLANY, 357	
		LETTERS TO THE EDITOR.		ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - 358	
		A Case. Yeargain - - - - - 354		NOTES AND ITEMS - - - - - iv, xli	
		Vesical Symptoms Induced by Fecal Impaction. Hackett - - - - - 354			
		Exfoliation of Bones. Bell - - - - - 354			
		The New Antipyretics. Davidson - - - 354			

Clinical Lecture.

OPERATION FOR RADICAL CURE OF SCROTAL HERNIA.—TENOTOMY FOR TALIPES EQUINUS.—EPITHELIOMA OF THE LIP.¹

By ERNEST LAPLACE, M.D.,

Professor of Pathology and Clinical Surgery in the Medico-Chirurgical College; Visiting Surgeon to the Philadelphia Hospital, etc.

GENTLEMEN:—The first case I show you this morning is one of the greatest importance. It is one in which I shall perform an operation for the radical cure of hernia. This hernia is of the scrotal variety, and the operation will consist in cutting down to the sac—or into the sac if necessary—investigating matters to ascertain if there be any adhesions, if none, so much the better; in reducing the hernia; in dissecting the sac from the tissues of the scrotum, passing a ligature around its neck and removing the excess of the sac below, obliterating in this way its cavity; and finally in treating the case antiseptically. Now, what are the dangers connected with such an operation? In any operation for hernia we should first think of the epigastric artery. In this case this artery is internal to the hernia. I will not cut among the inguinal ring, however, and will, therefore, run no danger of injuring it in this operation. The sac of the hernia is absolutely nothing else than the peritoneum which has been pushed down in front of the descending intestines. It is, therefore, an acquired scrotal hernia.

What is the difference between an acquired and a congenital scrotal hernia? A congenital scrotal hernia has no special containing sac whatever, the intestine passing directly down into the tunica vagi-

nalis testes. In the acquired form, however, the intestine pushes the true peritoneum in front of it, and then, in addition to the tunica vaginalis testes, we have this other peritoneal investment.

There are cases in which we should be prudent and cautious in our antiseptic measures. In this case you will notice that I am not going to be antiseptic, but aseptic. I will be cautious in removing all germs from around the patient, so that not being any there will be no use in endeavoring to destroy germs by antiseptics. Antisepsis is but the stepping-stone to asepsis. This is the reason why Lawson Tait, in a measure, decries antisepsis. He is careful in the preparation and treatment of his cases, that he has killed all germs, and needs no antisepsis but scrupulous cleanliness. The instruments which I shall use have been sterilized over night, so that it will not be necessary to use carbolic acid now. This cotton has also been sterilized, and I shall use it for sponging purposes. The patient has been thoroughly washed, first with soap and water, then with ether, and finally with a sublimate solution, and a towel dipped in the sublimate has been left on his scrotum over night.

The first thing to do here is to reduce the hernia. This I have now done, and my fingers are in the inguinal ring. The internal and external rings are in apposition here, the inguinal canal being virtually destroyed. I will now cut directly into the scrotum, and if I can dissect out the sac without opening it, so much the better. I am only using here water which has been boiled and then allowed to become lukewarm, but without the addition of any sublimate or carbolic acid. The inguinal ring is so large and stretched that the hernia readily slips out. I am now upon the sac, which I can recognize by its smooth, glistening appearance.

¹ Delivered at the Philadelphia Hospital.

By dissecting up all adhesions I am able now to circumscribe the membrane as it emerges from the inguinal ring. The hernia being reduced and the sac empty, I have nothing now to do but to pass the the ligature around it, first ascertaining that the cord and testicle are pushed well back and not included in the ligature. Having now tied my ligature, I will not remove the sac, since it is completely obliterated, and care has been taken to avoid any infection of the wound. I inject into the tissues some ten per cent. solution of iodoform in ether to irritate the parts a little, kill any germs which may be present, and secure union by first intention. Inserting a drainage tube, I close the wound in the scrotum with a continuous suture, and put over it a sterilized dressing.

The next case I wish to show you is one of, talipes equinus. This condition, like the other forms of club-foot, may be either hereditary or acquired. The etiology of this disease is not known. Some forms of club-foot are due to an irregular development of the astragalus. We thus have produced the forms of talipes varus and valgus. But in talipes equinus, where there is a shortening of the tendo-achilles, the direct cause of the trouble has not been found out. In this operation of severing of the tendon by subcutaneous tenotomy, scrupulous cleanliness is also needed, as in the former case. It was through this class of operations that attention was first directed towards the need of antiseptic precautions in surgical procedures. It was noticed that all of these cases of subcutaneous surgery proceeded rapidly towards a cure without any suppuration at all, while all open wounds passed through a period of suppuration. It was formerly believed that an open wound necessitated the so-called "laudable pus," but it is now recognized that if germs from the air or elsewhere be kept from a wound all suppuration may be prevented.

In performing tenotomy it is necessary that we know the underlying structures. We can bring the tendon boldly into relief by stretching the foot. Then with the edge of our tenatome directed outwards, or to the side of the foot, we insert it along the line of the tendon and cut out until the tendon snaps. Over the point of puncture we apply a little iodoform gauze, and then put on a permanent dressing. If we did not do this, the tendency would be to have a return of the original condition, for the tendon is a living tissue, and granulations will be thrown out, fibrous tissue formed, and a cicatrix result, uniting the two ends and causing a return of the condition. By stretching the foot, the contraction will be prevented, and the deformity remedied. In putting on a plaster of Paris dressing, let me call your attention to the absolute necessity of there being a good layer of cotton over the foot. Otherwise, pain will result from the pressure due to the swelling. By putting on the cotton we allow for this swelling. Most of the dressing should be applied around the ankle-joint, in order to maintain a continued flexed condition of the joint.

The next case is one of epithelioma of the lip, the so-called "smoker's cancer." This cancer is a strong evidence to the fact that in order to have a cancerous affection we must have an irritant to start with, and that next, the past must be a predisposition of the patient to the development of the peculiar condition we know of as cancerous growth. The true etiology of cancer is not known. The most favorable time to operate upon an epithelioma is as early as possible after we have convinced ourselves that the growth is of this nature. The sooner the better, especially before metastasis has taken place—that is, before there

is any involvement of the lymphatic glands. If such involvement has taken place, the glands will present the same pathological condition as the original growth itself. Happily, I have not here detected any infiltration of the glands.

I shall remove this wedge-shaped piece of the lip. As you see, the parts are very vascular. I control this bleeding by compression by forceps until I am ready to insert my sutures, when the pressure exerted by them will suffice to prevent further bleeding. I shall insert a deep suture here first to remove the strain from the superficial ones.

Original Article.

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

CHAPTER XII.

CUBA.

IN speaking of the Queen of the Antilles as a health resort, I find it necessary to begin my remarks with the statement, that if it is a health resort in truth, it is only because of its delightful and varying climate, and not in any way attributable to the social surroundings of the country; for within the last twelve years the continued grinding exactions of the Spanish government have so far destroyed the internal resources of the Island by exacting taxation and systematic repression of all that is good, that it is no longer a pleasant thing for a traveler to visit Havana City, and practically an unsafe thing for him to do to attempt to travel inland, away from a railway.

This condition of things has been steadily growing worse for five or six years, and during the last winter several who have visited Havana have told me that it was the custom for men to go about the streets at night only in parties of two or more, well armed and ready for any attack.

This state of affairs is one which is not conducive to quietude of the nervous system, nor to improvement in health of an invalid; therefore, while I propose to describe this beautiful country, and do it full justice in this work, it is with the reservation that its availability and comfort apparently lies in the future, when there may dawn for this most oppressed land an era of freedom and prosperity to which its natural advantages fairly entitle it, and from which it will be divided as long as the Latin race is permitted to retain possession of it, or the Spanish flag to wave over its Havana headquarters.

Cuba is in itself almost a continent. Stretching from a point some sixty miles west of our Florida Keys, to a distance of seven hundred and fifty miles east, with a breadth of from thirty to one hundred miles, it comprises in itself a sufficient amount of territory to give opportunity for journeyings and excursions innumerable. Besides this there are mountains in the eastern part of the island which are high enough to permit of any variety of climate being found upon their soft, sloping, verdure-clad sides. Extensive meadows, plains and valleys, alternating with deep and gloomy mountain gorges, open from the base of island mountains and give to the artist eye a succession of exquisite pictures. On the seaward side slopes are more precipitous, and come down to the water in craggy descents that are picturesque in the extreme. The eastern end of the island

also is filled with precious metals and valuable minerals, which are at present beginning to be explored by enterprising Americans.

Rivers are few and of but slight extent, because the rocks on which soil is built are mainly lime stone, perforated in every direction by rifts and caverns, into which the surface water finds ready entrance. In the middle of the island vast plains of red clay, resting upon a subsoil of rock, extend from one side to the other, and the population is sparse. Through this section, where once beautiful coffee and rich sugar estates covered every mile, devastations of the Spanish soldiery, volunteers, and banditti, have so completely destroyed the value of land to live upon, that only desolation reigns where formerly was wealth and prosperity.

To the westward is the land adapted for the production of coffee, which means a better drained section than we have just left, and still west of that, the vast tobacco plantations in the district of Vuelta Abajo. This belt is eighty-four miles long by twenty-one broad, and comprises the section upon which grows the most valuable specimens of tobacco plant in the world. All the cigars of the famous makers of Havana come from this belt, which, while it has never been large enough to supply the immense demand, has not failed to give to millions of cigars made thousands of miles distant its famous and well-known name.

There is no reason why a tourist visiting Cuba should carry any other money with him than American, which is always at a premium, even over Spanish gold. Perhaps the best way to reach the island is by rail to Tampa Port, thence by steamer across a smooth sea about twelve hours wide; or one may go direct by the excellent steamers of the Ward line, which sail weekly, and carry one to the entrance of the beautiful bay in four days. By whichever route one may arrive here, he will be landed from the steamer by boats that ply about the harbor at the custom house dock, and will pay whatever amount his limited knowledge of Spanish permits him to bargain for, or the conscience of the boatman allows him to ask; in the latter case, an unknown quantity, the proper fare being twenty-five cents for each person. There is never any trouble at the custom house. Officers are polite, and one's baggage is fairly on its way to the hotel before the tourist has ceased to be amused and entertained with the strange sights about the dock.

There are several excellent hotels in Havana, the best of which is probably just now the Pasaje, and it is better to have had one's rooms engaged beforehand, as the hotel is frequently crowded during the winter months. A note addressed to Mr. Smyrk at the hotel Pasaje, will meet with prompt attention and insure comfortable quarters. The price of hotel living in Havana is considerably higher than in the other islands that we have visited. It is usual to pay four or five dollars a day, where, as we have seen in other places, the average is but two. The best rooms in all these Cuban hotels are the highest up, and if you can get yours upon the roof, you will be sure to have plenty of fresh pure air, and the loveliest sunrises in the world. Winter temperature is 77° , running down in the interior to about 75° ; but I have repeatedly seen a drop take place to 55° , when every one, Northerners included, went about half frozen. Rains are uncommon and rare during the winter months, and frost, of course, is totally unknown, except upon the tops of the highest mountains; yet it will not do to wear thin clothing in Cuba because of frequent severe and sudden changes, and it is better for

every one to provide himself with woolen underclothing and flannel suits.

Umbrellas are an absolute necessity. Not so much for rain as for the constant, burning heat of the sun, and a native would as soon think of leaving his house without his hat as without his umbrella.

It is better to be careful of one's diet, for the temptations at the well-furnished tables of these hotels in the shape of savory Spanish dishes and excellent Spanish wine are great. One good meal a day—the breakfast—served at noon with a moderately light dinner at seven, is quite sufficient for the full-blooded Northerner, who exchanges his winter at home for the summer of Cuba. And if caution is needed in eating, it is much more necessary in drinking. Stimulants should be totally avoided, or indulged in with extreme caution. Here, as elsewhere, I believe it to be much the better plan to bring one's diet as close to the native standard as possible. Be satisfied that the experience of a people in the land which they have inhabited for hundreds of years, will certainly guide them properly, and it is only fair that their example should be followed by those who come to stay but a little while. These dwellers under the sun know better far than to increase the caloric in the atmosphere by pouring liquid fire into their stomachs. Their drinks are called "refreshers," and are so in point of fact. Orchata, naranja, guanabana, panales and limonada, are some of the Spanish names for delicious fruit beverages, served up in immense glasses half filled with tinkling ice, whose music itself refreshes in this hot climate. One drinks them continually, imbibing through the day a quantity of fluid which would be simply out of the question in a colder land where transpiration through the skin is slow. Our thirsty friends like them all, and are ever on the alert to find something new. Best of all is, perhaps, the juice of the green cocoanut, always cool, healthy and cheap.

A Cuban drinks water in a handy sort of way. He takes the jar in his hands, holds it above his mouth eight or ten inches, and pours a stream down his throat that never touches anything excepting the bottom of his stomach. It requires practice to do this and not get wet. I tried it, and immediately proceeded to my room for dry clothes. Tumblers work better for foreigners.

In a work of this kind, to speak of Havana and omit all mention of bull fights would manifestly be unfair, and yet the sport is so essentially bloody and cruel that it is better to spare my readers details. Any one who wishes to assist may readily find a chance if he is in Havana over Sunday, for there are few of the Sabbath days when there is not a fight going on at the bull ring across the bay at Regla. I have rarely found Americans who could sit through the spectacle, and not be turned deadly sick by the bloody brutality which these people are pleased to call "amusement." One visit to this circular butcher's shop is usually sufficient for most of our people.

In many instances careless of human life and reckless of bloodshed, the Habañeros evince a loving care in poverty and distress which gives to a stranger a better idea of their character than he would be likely to form upon a superficial inspection. Around the ring of the Plaza de Toros, women and little children form a part of every audience, and watch with delight the frightful cruelties of the fight. In war persons are massacred on both sides like wild animals, and no quarter is given or asked.

But there are two opposite sides to Spanish character. Let us look a little at the better part, and

visit two of the leading charities of Cuba, which would do honor to any country in the civilized globe. My excellent friend, Dr. Burgess, who has long represented the medical profession in Cuba, and whose extended residence there has given him great influence in Havana society, accompanied us one day to the well-known Casa de Beneficencia, or Foundling Asylum of the city, where more than a thousand children are constantly cared for. About a mile out, through the seaward streets, we came to an inclosing wall of yellow stone, and, with the doctor for guide, passed within the gates. Outside was the lonely street facing the sea, with but a few Chinese loitering around; within was busy, bustling life and work. The superintendent was especially anxious that we should see everything, and really there was nothing unworthy of careful attention. Within these yellow walls was all the machinery of a town. Shops in which there was for sale every needful thing; streets of handsome buildings; chapels, altars, gardens and fountains; all showed intense activity. We were shown suites of comfortable rooms, where women, poor or rich, married or single, might come for their confinement, and be sure of kind and skilful attention, with no other than voluntary payment, and no questions asked, except name, age, and birthplace. The dining-halls were neat, airy and cheerful, and we saw hundreds of healthy, happy children eating plain, nourishing food to the accompaniment of the church lessons of the day. Then came the dormitories, play-rooms, hospitals and store-rooms, for all this mass of child life of from a few hours experience in the world to fourteen years of age, when they are apprenticed out to some trade, if not otherwise provided for. This great charity has been endowed by bequests till it is nearly self-sustaining, and is doing more to suppress the infamous crimes of infanticide and abortion than a thousand penal laws.

A few days later, again in company with Dr. Burgess, we devoted half a day to a visit and inspection of the Leper's Hospital, the well-known Lazaretto of Havana. All the islands of the West Indies are more or less infested with this terrible disease, which up to within a few months of this present writing, the summer of 1891, has been practically uncontrolled by governmental interference; but within the past year the efforts of a number of determined men have resulted in the segregation of lepers in almost every island where they were known, and the result of this wise action will be to speedily rid these islands of their greatest curse for tourists—the presence in the streets of victims to this loathsome disease. It is of the tuberculous, or the anæsthetic type: that peculiar phase of leprosy described in the Bible, wherein the skin becomes as white as snow, is totally unknown out of Syria, and I am informed by travelers who have recently visited the Holy Land that lepers there at the present time are of the same type as those in the West India islands. From first to last the disease is incurable. Every phase of treatment that has hitherto been tried has proven only palliative. The best results have been obtained in Antigua and St. Kitts from chaulmoogra oil. It is doubtful, however, whether anything better has been attained than alleviation of the disease; certainly there is not one case on record that has been cured.

Dr. Boon, of St. Kitts, who drove me to the newly-built leper asylum at Sandy Point, on that island, which is under the most efficient charge of Dr. Semper, assured me that during his twenty-three years' active work in the island he had neither known or heard of a single recovery, and this experience but

repeats that of every other medical man whom I met throughout the islands. The general opinion, so far as I was able to ascertain it, was against the contagiousness of leprosy. All agreed that, under certain circumstances, it might be transmitted by direct infection, but cases of this kind were so exceedingly rare that the sisters who have had charge of the lazaretto in Trinidad for twenty-five years told me that they could not recall more than one or two instances where the disease had been propagated in that way.

Within the last two or three years so much interest has been excited in leprosy by constant study of the disease and untiring efforts of the newspapers to provide for the proper care of its subjects, that authorities throughout the West Indies have made it a subject of careful consideration and stringent law. The new police regulations of St. Kitts provide for forcible segregation of every leper found about the streets who is unable by himself or friends to provide for proper care and treatment out of sight. The senior medical officer of the island, Dr. Branch, assures me that the number who still remain in their houses, under the exercise of this law, are but twelve, and that these are so closely watched that there is small danger of their ever being seen. The total number in the islands of St. Kitts and Nevis is about one hundred and ten, and I found in the comfortable quarters at Sandy Point about one hundred patients under care; this digression from Cuba will, I hope, be justified by general desire on the part of the profession and others for information regarding this terrible disease.

Havana is peculiarly fortunate in its leper hospital, for it owes nothing to state aid for its erection or support. Many years ago a wealthy merchant, who owned large estates outside the walls, discovered upon his person evidences that he was a victim to leprosy. There was no place for him to go, no shelter outside his own house, and to remain there involved the health and life of his family, so he built a residence upon these suburban plains and retired to it for life; and, while awaiting death, determined to build and endow a home for all future lepers in the land, to which they could retire upon the appearance of those signs which forever doom a person to a living death. They are not many. A little round, movable mass in the lobe of the ear or under the skin of the face, a slight difference in color of the skin of the hand or arm, and sentence is passed. No pain; no general disturbance of function; only a multiplication of tumors over neck and face, or an extension of paralyzed surface takes place, until the first stage is passed. Then these tumors break down into ulcers, which spread relentlessly until the patient succumbs from exhaustion, unless complications in the way of consumption or some other form of disease puts an end to the scene.

The Havana lazaretto is a great space inclosed within high walls, wherein are two immense stone halls, with well arranged rooms for some three hundred men and women. They are more than pleasant, these wards, surrounded as they are by wide verandas on every side, and close to the Mexican Gulf, whose salt air breathes coolness and strength into every cranny of every room. They were even more attractive than my own chamber at the hotel.

Accompanied by the quiet, sweet-faced sisters who have sanitary charge, we wandered through the building, admiring the pretty gardens, and meeting here and there patients, whose evidences of leprosy were carefully concealed, except where the disease

had amputated parts of their limbs. It is not impossible to gain access to the Havana lazaretto, and any one who cares to visit these unfortunates may do so by making application to Dr. Burgess.

The stranger in Cuba will care, probably, to visit some sugar planter's home, or "ingenio," as the Spaniards call it. There are not many sugar plantations within visiting distance of Havana, indeed but one is especially accessible. In order to visit that considerable diplomatic correspondence is necessary, for it is peculiar to some of our countrymen who travel that they are not content with criticising sharply what they see, but they must print their strictures in some newspaper at home. So when the sugar planter of La Toledo saw himself sneered at in print, and called a "cruel slave driver," he lost his patience, and vowed that Yankees should never come in his gates again.

The excursion may readily be made in one day, and permission to visit the estate can be obtained through the proprietors of the hotel. One goes by cab to the railway station of Marianao, past the beautiful botanical gardens, and by rail to the pretty village, terminus of the road. Carriages must be provided here, to drive across country to the plantation, which is carefully guarded by a well-armed negro, who permits no one to enter without a pass. Driving directly past the works, the residence of the superintendent will be reached, who is pleased always to show visitors about the place and to exhibit to them the process of sugar making. The last time that I visited Toledo slavery was still in existence, and there are yet some few of the slaves upon the plantation, but the institution is doomed, and a few more years at most will see its total extinction.

It is well worth a visit, this sugar estate, and for those who have never seen the transformation that cane juice undergoes in becoming sugar it is indeed interesting.

Coffee plantations are practically done with in the island; and this seems a great pity, for the soil of the centre of Cuba is particularly fitted for the growth of the coffee plant; so it is out of the question that a coffee plantation or cafetal can be visited.

An excursion should be made to Matanzas, which may readily be done in a single day, there being a choice of two routes by rail—one running through the island, and giving a good chance to study its topography for five or six hours; the other, directly along the coast a distance of sixty miles, a run which is made in about two. If any one chooses to remain in Matanzas—and I am by no means sure that it is not a better place to stay than Havana—he will find an excellent hotel, kept by three brothers, who are energetic and capable, and who manage to make travelers very comfortable at a moderate cost. From Matanzas there are most delightful drives—one to Monserrat, a hill that overhangs the city and the valley of the Yumurri; and another along the beach, through the beautiful Calzada del Mar beside the azure sea, toward the famous caves of Bellamar. There is no more beautiful view in the West Indies than the lovely valley that stretches out from the hill of Monserrat, seventeen miles in length, and eight or ten wide. Winding through the middle is the silver line of the little river that gives the vale its name, bordered on either side by tall palms, whose stately proportions are dwarfed by the distance, till they look like children's toys. My only regret in leaving the valley was that I had forgotten my colors, and could not bring a sketch away. I commend Yumurri and its lovely scenery to the thoughtful attention of

every artist who goes to Cuba. A buggy carrying two persons may be hired at the hotel for the drive out and back, for about a dollar; or a volante, carrying also two, for three dollars.

Almost every one who visits Matanzas cares to go to the famous caves that have been written about and talked about so much that they are almost as well known as our own Mammoth Cave.

It is a curious story how they were discovered. The land under which they stretch out their winding passages had for many years belonged to a poor planter, who had despaired of ever getting anything valuable from his arid fields. He gave them up finally for pasturage, and one day determined to dig a well to provide his cattle and sheep with water. The workmen had gone down some fifteen feet, when one of them, who was loosening the earth with a crow-bar, felt his tool slip from his hands through the hole it had just made, and fall into unknown space with a ringing sound, as if it struck a metal floor. He climbed out of the well, and went to his employer with the story, who recognized the fact that the crow-bar had probably fallen into some cavern, and at once began to explore; and the result was the finding of these vast chambers underground, that have been explored a distance of some dozen miles or more, but to which a limit has not yet been discovered.

The drive from the hotel by volante to the caves may be done, and the caves themselves visited, in a half day, at an expense of ten dollars for three persons.

From Matanzas, a railway runs across the island to Cienfuegos; but, unless one is forced to go to this place, I advise that the railway journey be not taken, for it is emphatically the most uncomfortable one that I know of anywhere. There is neither water nor food to be had by the way. At every station one may find readily the rum of the country, and harsh red wines; but no water fit to drink, and it is necessary to take with you on the cars a sufficient quantity of the necessary fluid to last till you reach the journey's end.

Cienfuegos is a bright, Yankee-looking town, with two or three fairly good hotels, a pretty square full of flowers, wherein a band plays on Sunday, and an extraordinary club built and owned by Chinese, which is well worth visiting. From this town one may go inland a little way, but not far just now, on account of the banditti, who make life uncomfortable.

The largest city of the eastern part of the island, Santiago de Cuba, is totally useless as a pleasure or health resort. There is no hotel worthy of the name, but one or two second-class restaurants, nothing to see, and nothing to do, except to get away, and so I shall not trouble the reader to accompany me about Santiago.

The only additional remarks that I care to make in reference to a visit to Cuba are that I have found it a much more expensive place to visit than the other islands where English is spoken, and by no means more comfortable in any way. In choosing, therefore, one's route for a vacation, it may be as well to leave out Cuba—at least, until a more beneficent and liberal government than that of Spain has charge of its internal regulations. A few years ago the Isle of Pines, on the south coast of the island, was a well-known resort for consumptives, and was readily reached by steamer from Batabano. Now, however, the departures of the boats are exceedingly irregular and uncertain, and the rapidly decreasing number of invalids who have gone there has prevented proper care being taken of the slight Hotel

buildings that were there, which have fallen into much decay; and one can hardly be justified in sending delicate invalids to a place so difficult of access and so uncomfortable as the Isle of Pines is at present.

The average expenses of a tourist in Cuba may fairly be reckoned at six dollars a day, which may, however, be reduced one third, if he remain quiet at a second-class hotel or boarding-house.

SAL-BROMALIDE (SALICYL-BROMANILIDE.)

By FRANK WOODBURY, A.M., M.D.,

Honorary Professor of Clinical Medicine in the Medico-Chirurgical College of Philadelphia; Chairman of Section on Materia Medica and Pharmacy, Am. Med. Asso., etc.

IT is unfortunate that the chemical titles of the newly introduced remedies belonging to the aromatic series are so long and involved as to prelude their use in medicine, or, at least, in clinical medicine; for what would be gained in exactness of terminology and scientific accuracy by their employment, would be lost in convenience. In fact, if many of them were known only under their scientific title they would never have gained a foot-hold in practical medicine. If antipyrine had been introduced simply as di-methyl oxyquinizine, who would question that its annual consumption would be confined to ounces instead of tons, as at present? We doubt if there are many physicians who would prescribe sulphonal under the name of di-ethyl-sulphon-di-methyl-methane, or kairine as oxy-ethyl-chinoline-hydride-hydrochlorate. It has thus become absolutely necessary to adopt short titles that may be sufficiently descriptive and characteristic to enable them to be applied without error. In fact, this had already been done in the case of salicylic acid (orthoxybenzoic acid) and chloral (trichloroacetyl hydride or trichloraldehyde), and in many other instances.

Taking a hint from chloral, which combines the first syllables of its constituents, chlorine and alcohol, I have taken the first syllables and the final one of the full title of a new drug, which appeared last year, salicyl-bromanilide, and made of it the shorter and more euphonious name of sal-bromalide, which has less of "learned length and thundering sound," and is easily understood by the pharmacists when encountered in prescriptions.

Having had several months experience in the use of this new compound, perhaps a general summary of my observations might have some interest to others who are using it. For those who have not yet acquainted themselves with this recent addition to our already somewhat overburdened armamentarium, a few words of description are necessary. Dr. S. Radlauer, of Berlin, some six months or more ago, brought to the notice of the profession a derivative of acetanilide, or rather a combination of two derivatives of acetanilide; *i. e.*, salicylanilide and bromacetanilide, the formula being: $C_6H_5NH[C_6H_4(OH)(CO)] + C_6H_4Br.NH.CH_3Co$. It has been found, as might be inferred from its composition, an antiseptic, antipyretic, antineuralgic and hypnotic. On account of its sedative and hypnotic influence, it was originally called by its introducer "antinervin," a title, to my mind, very objectionable, and one that would not commend itself to the profession. It will be more appropriated to call it sal-bromalide, as suggested at the beginning of this communication.

Sal-bromalide is in the form of a white crystalline, granular powder without odor, and almost tasteless. It is soluble in ether, alcohol, and hot water; and

very slightly soluble in cold water, to which it imparts a feebly acid reaction. It is much more soluble in water acidulated with hydrochloric acid, or in dilute solution of caustic potassa. It is an anti-ferment and deodorizer. In support of this I would cite the following experiment. Some stale urine in a specific gravity glass in my office was found to be decidedly malodorous and thronging with bacteria. The addition of a grain or two of sal-bromalide at once checked putrefaction, and in the course of a few hours had almost completely deodorized the liquid, which, by the next day, had become clear, the bacteria falling to the bottom of the glass.

I have used the remedy clinically:

1. To relieve pain.
2. To produce sleep.
3. To allay spasmodic cough.
4. To reduce fever.
5. To arrest fermentation in infectious dyspepsia.

The usual dose is from 3 to 5 grains, where the remedy is repeated every few hours; for a single dose 8 or 10 grains may be given. I have generally prescribed it alone, as it is not unpleasant to the taste; but for children I have added to it about one-fifth of its weight of sweet chocolate or Phillips' digestible cocoa.

Without going into details of cases, I would say that for the relief of pain, as in migraine or neuralgia, this agent has proved satisfactory (after removal of any irritating substances from the stomach or bowels, when such were present). In simple neuralgic headache, it acts like antipyrine, though requiring only from 5 to 8 grains usually at a dose. The same amount, in a number of instances, produced natural sleep in patients suffering with insomnia. In one case of spasmodic cough, with an asthmatic element, 5 grains were given every hour for six hours, and the patient slept all night, though, according to her statement, she had not been able previously to lie in bed or to sleep at night for more than a month. I have not had an opportunity of testing it in whooping-cough, but from its effects in other forms of spasmodic cough I feel satisfied that it will at least modify the paroxysms. In fever attending the grippe, sal-bromalide acts promptly, and ameliorates the other symptoms—muscle pains, headache, backache, etc. In other febrile conditions, I have not yet completed comparative observations with other antipyretics, but note that it quiets restlessness and favors repose. Possibly, in larger doses than I have yet given it, sal-bromalide may also be efficient as the other agents of its class in lowering temperature. It agrees well with the stomach, and checks fermentation, though not so promptly as some other antiseptics.

Thus far, I have not observed any unpleasant effects upon the circulation or nervous system, either in adults or children. Even in cases with dilated and fatty heart, several 5-grain doses, given every hour or two, apparently caused no ill-result, but, on the contrary, produced a good night's rest. As it is excreted principally by the kidneys, it probably exerts an antiseptic effect along the urinary passages, and might be useful in irritable bladder, pyelitis, pyuria, gleet, etc. It has been asserted that it may be administered with good results in diabetes, where it reduces both the proportion of the sugar and the quantity of water. As yet, I am not able to confirm this from my own observation, nor have I had an opportunity of using it in acute rheumatism, over which it is said to exercise remarkable influence, reducing fever and pain, and shortening the course of the disease. In pneumonia it should also be very

useful in relieving the irritable cough and reducing the fever temperature. Upon some patients in Dr. Da-Costa's wards at the Pennsylvania Hospital, suffering with typhoid fever, it was found to act well in quieting restlessness and producing sleep, although it did not have so much effect upon the temperature as phenacetine, yet, on the other hand, it did not produce sweating or other disagreeable consequences, as the latter does. Not among the least of the advantages claimed for this salt as a substitute for antipyrine is that it is much cheaper—in fact, about half the price of that much used and much abused drug.

218 SOUTH SIXTEENTH STREET, PHILADELPHIA.

TUBERCULOSIS—ITS CAUSE AND PREVENTION.

By E. W. BING, M.D.,
CHESTER, PA.

THE subject of this paper, Tuberculosis, is a disease which has from time immemorial caused an almost incalculable amount of mortality, carrying off from one-tenth to one-sixth of the human race annually, and has consequently presented an inexhaustible field for research, by the greatest minds of the profession, for ages; and which at the present time, both in the profession and amongst the laity, is attracting more attention and study, and involving greater results than, perhaps, any other disease.

All kinds of ideas have prevailed, from the time of the earliest observer until now, of the nature of the malady, its cause, and its possible cure, and almost every drug of the pharmacopoeias has in turn been tried and vaunted as a specific, only, in a short time, to add another example to the long story of failures, and a repetition of the disappointments of the enthusiasts.

The ancients, recognizing the objective symptoms of the disorder, conferred on it its characteristic appellation of phthisis. In view of the notable loss of flesh which occurs in cases of the disease, no name could possibly be more indicative of its outward manifestations.

A distinction must be sharply drawn between the terms tubercle and tuberculosis. The former implies a local change, characterized by the formation of a new tissue disseminated through the normal structures, and composed of cells of a feeble nature, which are at any time liable to degeneration and decay.

The nodule or tubercle itself is simply a growth, and has no clinical significance beyond its tendency to degenerative change, and consequent implication of surrounding tissues in extending inflammation.

Treves, in his discussion of the question, says: "It must be understood that tubercle in its simplest sense (the nodule) refers to the most typical stage of a certain tissue change, and that to the process which precedes and follows its appearance only can the term *tubercular* be applied."

Again: "Tubercle is the most finished structural change of a certain process; but the mere presence of the nodule does not necessarily imply that grave state of health associated with the word *tuberculosis*."

M. Ferrand also observes that tubercle does not constitute a disease, any more than suppuration does.

So, what was at one time supposed to be the cause of the disease becomes only one of the factors in the clinical history, or rather pathological anatomy, and we must look to some other cause for an explanation.

With regard to its general or constitutional effects, tuberculosis refers to a condition of the tissues, which renders the individual liable to the local manifestations when from any reason his vitality is below the

normal standard; when, in other words, there is a constitutional defect or predisposition.

Looked at in this sense, tuberculosis only represents a condition, resulting from a previously acting cause, and it is this cause which has lately involved so much research by experimental methods. The medical world so long divided on this subject is at last coming to a unity of opinion, induced principally by the labors of the bacteriologist, and now the recognized prime factors in the etiology are considered to be germs, infinitesimal in size, which are constantly floating in our atmosphere, and which, when absorbed into the systems of individuals predisposed to their specific action, fix themselves, germinate, and produce their effects, both generally and locally.

The light thrown on the etiology of other diseases by the gradual development and perfecting of the germ theory renders it probable that this is the correct explanation in this disease also. As far back as 1860 the current of thought was beginning to trend in this direction, and some observers concluded that the cause was a virus from without the body, although as to its nature they were in uncertainty. At the present time there is still some doubt, as it has not been definitely settled whether the bacilli or the medium in which they float is the active agent, as they have not been separated; some maintain that the bacilli are not a necessary ingredient, but simply a concomitant by reason of having found a favorable soil for their development. In support of this assertion the disease lupus may be taken as an example. Inoculation with fluid from its nodules will cause tuberculosis in rabbits and guinea-pigs, but tubercle bacilli can but infrequently be found in the fluid (*Medical Record*.) Koch, himself, in speaking of the immediate results of inoculation with his lymph, says: "This effect is not exclusively produced with living tubercular matter (bacilli), but is also observed with the dead bacilli, the result being the same, whether the bacilli are killed by the application of a sudden or prolonged action of heat, or by chemicals." Pursuing his experiments, he found that a killed pure cultivation of tubercular bacilli, after being diluted with water, might be injected with the result of producing local suppuration only, in healthy animals, but in tubercular subjects it produced its marked constitutional effects. This would tend to the conclusion above reached, that the bacilli are not proved to be essential. The consensus of opinion, however, regards the bacilli as being the direct agents in the reproduction of the disease.

There appears to be no doubt as to the infectious character of the virus when introduced into the system of a predisposed individual, but to infer that all are liable to contract the disease would be to contravene one of the cardinal points of the law of infection, as applied to other maladies of an infectious nature.

The chief medium by which infection is conveyed is considered to be the sputum, which, when pulverized by any means, is pre-eminently fitted to mingle with the atmosphere and exert its deleterious effects to most advantage.

Another means is by the milk from tubercular animals, and from eating their flesh, also probably from diseased excreta from human or lower animals which have become mixed with the water supply, used for drinking and other purposes.

Thus we see that under favorable circumstances the germ has access to the system in almost every conceivable way, by the air, by water, or by food, and only needs its proper soil to increase. This in-

crease in healthy (now predisposed) persons is supposed to be presented by the bacteriophagic action of the white corpuscles, and so long as they are able to meet and destroy the invading germs the disease cannot take root.

The truth of the adage, that "prevention is better than cure," would be well illustrated in this case, if it were possible to consign affected individuals to isolated colonies conducted on strict hygienic principles, and every care taken to destroy all the tangible means of infection, much in the same way as in leper sanitariums. If this were practicable, no doubt there would at least be a great lessening of the number of cases, and, in time, the disease might be annihilated. But, the widespread distribution of the disease effectually precludes such a scheme, leaving out of consideration the social side of the question. The only method left us, then, is by the dissemination, as widely as possible, of the knowledge of the various means of prevention, as far as known, and so impressing on the people the gravity of the matter, that both sick and well will co-operate to the fullest extent in precautionary hygienic measures.

The sanitary authorities should have plenary powers to enforce the inspection of all factories and buildings in which many persons are congregated, with a view of weeding out cases of the disease. Also, the inspection should extend to cattle and meat intended for food. Dairy herds should be constantly watched, and any cases of disease promptly quarantined, and, if necessary, destroyed; and farm buildings, drainage and water supply, and the sources of distribution of food products in cities should, of course, be included in the inspection.

By these means the avenues of approach of the disorder would be curtailed.

The means of cure of tuberculosis is still shrouded in darkness, although gleams of light and hope are from time to time breaking upon us, and encouraging us that we are approaching the desired goal.

Whether the method of inoculating with the attenuated virus of Koch will prove to be the "Elixir of Life" to those afflicted with tuberculosis remains to be seen.

Society Notes.

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

Stated Meeting held March 12, 1891.

THE 722d regular meeting of the society was called to order by the president, Dr. David Streett.

DR. JOHN W. CHAMBERS made some remarks on

APPENDICITIS.

He said appendicitis or typhlitis is a term usually applied to an inflammation in the right iliac region. The appendix vermiformis is ordinarily spoken of as being behind the peritoneum, whereas it is a perfectly free body within the peritoneum and is exceptionally movable. The descriptions as usually given in the text-books are misleading. It is described as lying on the internal iliac muscle, whereas it more frequently lies on the psoas muscle. In some cases it lies behind the cæcum. It may or may not have a reflection of the peritoneum, usually it has. It is found on the left side in about 2 per cent. of cases. It was found by Trièves associated with the liver.

An inguinal hernia may contain the appendix, as shown by the specimen. (Here Dr. C. exhibited a specimen of an appendix that had been removed from an inguinal hernia.)

Its length is from three to seven inches, and it usually is found to contain fecal matter. The diagnosis is not easy. We are now in about the position of some of the older doctors, who say that a diagnosis below the diaphragm is simply the weighing of probabilities; the abdominal organs are so movable it is difficult to make a diagnosis. In the lungs, which are fixed, it is easy. The only definite method of diagnosing cases in the abdominal region is to open the abdomen, and then the post mortem will sometimes clear it up. What is usually termed an appendicitis is a localized peritonitis. It begins in most cases as a catarrhal inflammation, usually due to the presence of a foreign body, seeds is supposed to be a frequent cause, but if you examine these "seeds" carefully, you will find many of them are local concretions.

Ulceration follows, during which process adhesions take place, pus forms and an abscess, within the peritoneum, is the usual result. A simple catarrhal inflammation can hardly explain the constitutional symptoms. In the cases where there are such marked constitutional symptoms, he thought that an abscess had already formed, it may burst into the bowel and get well, or it may burst into the peritoneum and set up a local or general peritonitis.

There is a rare variety, acute gangrenous, or perforating, appendicitis, where almost the first symptom is a sudden collapse. This form is a surgical disease and should be treated with the knife promptly. Just when the abdomen should be opened is a question that should be decided on the merits of each individual case; what may be proper to do on the third day in one case would be dangerous in another. There is some doubt but that the doctor with rest and opium does not cure as many cases as the surgeon with his knife.

If an abscess can be recognized through the abdominal walls it should be opened and drained. This would not be a laparotomy, but is the same as opening an abscess in any other part of the body, as the gluteal region for instance. These cases should not be classed as laparotomies, as by the inflammatory adhesions the abscess is cut off from the peritoneal cavity.

Why it should suddenly perforate in one case and slowly in another, is due to the position of the foreign body. If the foreign body gets in such a position as to cut off the circulation of the lower part of the appendix it will cause gangrene or perforating appendicitis, as illustrated by the following cases: Last September was called, at 11 P. M., to see a robust, healthy boy, suffering from what was supposed to be cramp colic, with several liquid stools. He had eaten a hearty supper, which made this a probable diagnosis. Some bismuth was given him. The next day his diarrhoea had stopped, but not the pain; he had a pulse of 120 and wiry. In twelve hours from the time he was taken he was much shocked; a few hours later he was seen by two prominent practitioners in consultation, and he was then intensely shocked, with a subnormal temperature of 96° F. in the rectum. It was decided to open the abdomen, and an incision was made in the right median line; from habit, he (Dr. C.) looked in the typhlitic region and saw a little pus and a black, sloughy mass, which proved to be the gangrenous appendix. It was ligated and removed. He died in three hours.

Case two was brought to the City Hospital about two years ago in a state of collapse. He was a carpenter and had shown no signs of illness up to the time of shock. His abdomen rapidly distended and he died in a few hours.

The post-mortem showed acute suppurative appendicitis, due to an orange seed.

Case three, shows where the nutrition of the organ not being so absolutely interfered with, the progress of the case is slower and recovery is more apt to follow. A woman, who was seen with Dr. Martenet, who will relate the case. She is now getting better. Now we know that while she may recover, she is liable to recurrent attacks, unless a radical operation is done, as recommended by Senn and others who advocate cutting down and removing the offending organ.

DR. J. F. MARTENET said he was called on March 4, about 10 A. M., to see a lady who was said to have fainted; she had recovered from the faint when he arrived, and she was then suffering with acute pain and general soreness over the abdomen and in the right iliac region particularly. Morphine was given, and at 2 P. M. she was more comfortable; at 6 she was worse, and as it was about time for her menstrual period, he thought it a case of painful menstruation; more morphine was given. When she was seen the next morning, she was menstruating, and he thought her trouble at an end. She was kept on the morphine, and on the 6th she became nauseated from it, she was then given suppositories. There was tumefaction over the right iliac region, and general soreness over the whole abdomen. She was kept under the anodyne effects of the opium, and on the 10th she had a movement of the bowels. The next day saw several operations, they were dark and thin, but contained neither pus nor blood. To day (12th), she passed pus. She is improving, and after the first movement of the bowels she became more comfortable, and is now doing well. In another case of a four-year old girl, who had severe pain in the abdomen, the nurse said the right groin was hard, while the rest of the abdomen was soft. Hot poultices were applied to the part, and on the fourth day the case assumed so serious an aspect that he told the family he would probably have to call in a surgeon, but happily the child got better. He mentioned this case because of the youth of the patient.

DR. GEORGE H. ROHÉ said Dr. Chambers very properly disagrees with some authorities in that a simple catarrh should cause such profound symptoms. There may be a case of acute suppurative appendicitis and no pus be discharged by the bowels, and yet the patient may not present any symptoms whatever, as illustrated in a post-mortem he made ten years ago, on a woman who died of pneumonia, after being operated on for vesico-vaginal fistula. There was about half a pint of pus encapsulated between the colon and liver. She had no fever and had no symptoms whatever. He believed that death from small collections of pus, in this way, is rare.

DR. DAVID STREETT said he had seen a post-mortem where there was a collection of pus encapsulated between the colon and liver, and when the pus was removed, there was a decided depression in the liver due to the pressure of the pus. He is not yet convinced that where there is tumefaction and pain in the right iliac region that these are cases of appendicitis. In all the cases where he has seen this tumefaction, they recovered, and in the cases where there was no doubt of the appendicitis they were all fatal, perforation took place and they died suddenly. He saw a girl

some time ago, who was taken suddenly with acute pain over the whole abdomen, she gave a history of having eaten an orange the day before. She became suddenly and alarmingly ill, and died in a few days. In another case of a girl of thirteen years, who had eaten some dates and had swallowed a seed, she was taken suddenly with pain over the whole abdomen, and died in three or four days. Unfortunately, there were no post-mortems in these cases. So that the seeds which were swallowed, not being demonstrated, can only be considered as a probable cause of the appendicitis. Though from the history of the cases there is little doubt of this. He was not yet prepared to turn over all of the cases to the surgeon, except where perforation takes place, then it becomes a surgical case.

DR. H. T. RENNOLDS said he saw a case of a boy of fourteen years, who had pain and swelling and tumefaction in the right iliac region, he diagnosed typhlitis, and this diagnosis was confirmed by Dr. Arnold. In six or seven days from the beginning of the attack, the boy had a large stool, which gave him immediate and entire relief. A man about twenty-five years old, in the course of two years, had five or six attacks of appendicitis, one or two of which were quite severe. He took a trip abroad, and when in London he was taken with vomiting, and had another attack, which proved fatal in a day or two. At the post-mortem, the cæcum was found to be ruptured and ulcerated.

DR. CHAMBERS said he was more convinced the more he heard, that those cases with abdominal tenderness and tumefaction do best without surgical interference, the knife should only be used in those cases where there is perforation. In answer to inquiry he said he thought that examination by the rectum did not give much information, unless there was marked induration, or where the tense abdominal walls over the region may be mistaken for a tumor, the rectal examination may be of service.

DR. DAVID STREETT related a case of

PREMATURE BIRTH OF TWINS, ONE DEAD, THE OTHER LIVING.

He was called on March 6, to see a lady for pains in the abdomen, supposed to be due to cold or something she had eaten. He found her pregnant at about six to six and one-half months. On examination she was found to be in labor and the os dilated, and a child was born in about three-quarters of an hour, it was still-born and from its macerated condition it was supposed to be dead about a week. The second child was born alive, it was small, weighing about three pounds; it died on the seventh day. The woman had menstruated last on the 7th of August, and was confined on the 6th of March, one day less than seven months, yet he was of the opinion that the gestation could not have been longer than six and one-half months. There was but one placenta and both cords were attached to it about six inches apart.

J. WM. FUNCK, M.D.,

Rec. Sect'y.

1710 W. Fayette Street.

THE builders of Johns Hopkins Hospital managed to spend over two million dollars in the construction of a hospital to accommodate 120 patients. How good Johns Hopkins would feel could he but rise from his grave and gaze on the baths of Parian marble, onyx ceilings, gilded walls and cuspadors of solid gold. Boss Tweed would cease to brag about the chairs that cost \$160,000 apiece. By the terms of the will the hospital was to accommodate 400 patients.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPÆDIC SURGERY.

Stated Meeting, February 20, 1891.

SAMUEL KETCH, M.D., Chairman.

DR. ROYAL WHITMAN exhibited a case of unusually severe genu-valgum, and one of teno-synovitis of the long extensors of the toes. As in the latter case, there was a tuberculous osteitis of the elbow. He considered that the lesion of the foot had a similar origin.

DR. V. P. GIBNEY said that in a somewhat similar case, where the tuberculous nature of the lesion was proved by microscopical examination, he had moved the tendons freely, divided the annular ligament, and scraped away the diseased tissue.

DR. JOHN RIDLON exhibited a man, twenty one years of age, who, as a result of an injury thirteen years before, was unable to supinate the wrist without causing a backward dislocation of the ulna. The apparatus which he had applied consisted of a leather case, with a metal side, which had been fitted so as to accurately grasp the ulna, by molding it over a plaster cast. He expected that after the patient had worn this apparatus constantly for two or three years the dislocation would be cured.

EXCISION OF THE KNEE-JOINT.

DR. A. M. PHELPS read a paper upon this subject.

DR. A. B. JUDSON recognized the conservatism of the treatment advocated by Dr. Phelps, whose paper clearly demonstrated the superiority of excision over amputation; but he thought the time had come for the better conservatism that is found in purely orthopædic treatment. Many of the patients would have made good recoveries if excision had given place to mechanical treatment, which puts an operation out of the question when employed from the beginning of the affection.

DR. THOMAS H. MANLEY raised the question as to whether a more useful limb would not often result from placing it in a more or less flexed position.

DR. W. R. TOWNSEND said that the worst results he had seen from excision of the knee had been in cases where the straight position of the limb had not been maintained. Such a faulty position was constantly aggravated by the weight of the body.

DR. RIDLON said that in spite of the excellent results reported in the paper, he was still of the opinion that this operation upon growing children was wholly unjustifiable, and he was convinced that cases which cannot be cured mechanically, viz.: those in which there is an extensive osteo-myelitis, were beyond the reach of anything short of amputation. The exceptionally good results obtained by the author, and a few other surgeons, did not argue against the soundness of the general teaching—that this operation should not be advised for such children.

The President remarked that, as a rule, orthopædic surgeons were confronted with knee-joint disease in growing children; and the cases mentioned in the paper must have been instances of neglect or of improper treatment.

DR. PHELPS, in closing the discussion on his paper, said that it might be that the cases had not been properly treated; but some of them had been under the care of good orthopædic surgeons, and he had himself treated some of them; but he must admit that he could not cure many of those cases by mechanical means. He had not yet had an oppor-

tunity of dissecting the parts and actually seeing the organized blood clot; but when a thin shell of bone, after an operation, becomes strong enough to sustain the weight of one hundred and eighty pounds, or more, he thought it reasonable to believe that this great increase in strength was due to something more than mere blood-clot. It was true that the majority of cases mentioned in his paper were adults, but many of the operations were performed upon children under twelve years of age, and some of his best results had been between the ages of ten and fourteen years. He urged the adoption of this operation in children, not under ten years of age, who were suffering from extensive bone disease, and he believed that the results so obtained were both quicker and better, and often saved the patients from amputation. A perusal of German literature would show that his results were not exceptional, and were similar to those obtained by a number of foreign operators.

LAMINECTOMY FOR POTT'S DISEASE.

DR. SAMUEL LLOYD read a paper on this subject. In introducing it he said that he took exception to the terms in common use in speaking of the removal of the posterior arches of the vertebræ, and especially to laminectomy, which was a hybrid term, made up of a Latin and a Greek word. He proposed to coin a new word, made from the Greek word meaning a "lamina," or plate, and another Greek word meaning to remove or cut away. He had collected the histories of thirty-nine cases of operation for Pott's disease.

In cases where abscesses were present, he said it was a comparatively safe procedure to explore the bodies of the vertebræ on their anterior surface, because the approach to the diseased foci was rendered easy by the abscess track, which had already pushed the intervening structures out of the way; and in these cases he advocated exploring the cavity, with a view to locating the bony disease, and eradicating it, if possible. The cases he had tabulated showed that the mortality in cases of laminectomy, as in ordinary cases of Pott's disease, was greater in adults than in children—57 per cent. in the former, and 10 per cent. in the latter. In only twenty-seven cases was the region involved in the disease stated, and of these, twenty-three were dorsal, which, while not affording sufficient data for an authoritative statement of the effect of the region upon the mortality, still bore out the statement made in a former paper on Laminectomy for Traumatism of the Spine, that the higher the lesion the greater the mortality. The time of the operation after the onset of the disease varied from four months to seven years. These statistics did not show that any time was better than another for operation, and it was impossible to definitely settle upon any time when, as a rule, operation should be undertaken. No surgeon would interfere in any case in which there were other tubercular affections of any extent complicating the cord lesion. Macewen's statement that marked hectic was a contra-indication to operation he considered fallacious. The operation should not be undertaken when there was any chance of recovery; but cases where the chances of recovery without operation were very slight, where continued mechanical treatment yielded little or no result, and where, at any moment, an extension of the lesion might render the patient hopeless, if it did not destroy his life, had better be operated upon. In cases which showed only progression of the disease, in spite of all care, and where an arrested degeneration was set up again, threatening the integrity of the cord, operation should

be undertaken early. In performing the operation, he preferred to make a single incision, cutting the spine away from the arch and leaving them attached to one of the flaps, because this method occupied less time, caused less hemorrhage, and did not interfere with the interspinous ligaments.

FIBRO SARCOMA OF THE FOOT.

DR. GIBNEY presented a foot which had been removed a few days before from a lady, twenty-eight years of age, who, as a result of bruising the foot against a twig, had suffered pain in the sole for seven years. She had been treated by various appliances, and once by incision, but with negative result. When she came under the speaker's care, eighteen months ago, there was aggravated flat foot and a fullness in the sole, which was thought to be due to the cicatricial tissue following the exploratory incision. Apparatus gave only temporary relief, and, after consultation with Dr. W. T. Bull, an incision was made along the inner side of the foot, and considerable gelatinous material and some broken-down bone from the vicinity of the cuboid were evacuated. Three well-known pathologists in this city examined this tissue, and pronounced it a case of fibro-sarcoma. Subsequently, some more of the tissue was sent to one of these gentlemen, who, from the microscopical appearances of the granulation tissue, pronounced it tuberculosis. On laying the foot open, the bone was found to be fairly healthy. The case was of interest on account of its long duration and the pathological findings.

Dr. Gibney also referred to a case of long-standing hip-joint disease, occurring in a girl, twelve years of age, who, as a result of the profuse suppuration, developed amyloid disease of the liver, spleen, and kidneys. As the pathologist, Dr. Tuttle, had found in the cheesy matter removed from a small excavation in one of the acetabula almost a pure culture of tubercle bacilli, he thought it might be interesting to the members to examine the specimen under the microscope.

A CASE OF LATERAL CURVATURE.

DR. A. B. JUDSON presented a patient, a girl of eleven years, in whom there was marked lateral curvature of the spine, although the line of the spinous processes was straight. The curvature in this case was confined to the bodies of the vertebrae which were displaced toward the left with the usual signs of rotation of the anterior portion of the vertebral column toward the left. The left scapula was raised, and its posterior border projected sharply backward, an obliquity best seen when the shoulders were observed from above. Stooping developed prominence of the ribs on the left side. Palpation showed the diameter of the chest from the right mammary line to the angles of the left ribs, larger than the corresponding dimension of the other side. The case illustrated the important clinical fact that the gravity of lateral curvature is not to be measured by the curve seen in the spinous processes, but rather by recognizing the amount of rotation. The patient had been under observation two weeks, and the deformity was first noticed by the mother last summer.

DR. H. L. TAYLOR said that after the child had become tired by standing in one position, there seemed to be a slight deviation of the spinous processes, and lateral flexion in the dorsal region seemed a little more restricted towards the left.

DR. JUDSON replied that it was common for the deformity to vary with rest and fatigue.

TRAUMATIC SEPARATION OF THE RIGHT PARIETAL AND OCCIPITAL BONES.

DR. T. HALSTED MYERS presented a boy, five months old, who had presented nothing abnormal until two months before, when he had fallen on his head. The injury was quickly followed by great swelling, which gradually diminished. There was no paralysis, and no mental change. Examination showed a cleft in the region of the right half of the lambdoid suture, one inch wide, and four inches long, through which a fluctuating mass protruded, probably the membranes distended with cerebro-spinal fluid. It became tense as the child cried, transmitted the cerebral impulse, and on pressure disappeared almost entirely, with correspondingly increased prominence of the anterior fontanelle. The posterior border of the parietal bone seemed also to have suffered a green-stick fracture one-third of an inch from the edge of the fissure.

ADJUSTED LOCOMOTION IN THE TREATMENT OF THE RECOVERING STAGE OF HIP-JOINT DISEASE.

DR. HENRY LING TAYLOR presented a paper on this subject. He said that the tendency of inflammations of the hip joint was towards recovery, if favorable conditions were provided. In the stage of acute and progressive inflammation the treatment by position and counter-extension in the line of deformity, counteract muscular spasm, and protect the joint, and when combined for a short time with recumbency, usually afforded prompt relief to the urgent symptoms, and if persisted in, and modified to meet the varying requirements of the case, ushered in the stage of repair and recovery.

The case of a boy, six-and-a-half years old, who had suffered from hip disease for a year and a half, and had worn a short splint for nine months, was cited to illustrate the prompt relief from properly applied extension, which caused cessation from night cries at once, and within a week, improved the appetite, appearance, weight, and deformity, although he had been rapidly losing ground for several months.

The later stages of these cases in their progress towards recovery, present just as definite though different indications for treatment. As pointed out by Dr. C. Fayette Taylor some twenty years ago, the patient is ready for the motions of walking before he is able to bear weight on the joint. It is not usually for the patient's interest to allow him to walk as soon as active symptoms have disappeared, nor to keep his leg suspended passively, or in a stiff splint for too long a period. His recently diseased and disused joint and its appendages should be trained and developed, and the reparative process stimulated by the systematic and orderly employment of these elements of locomotion that may be made beneficial, while harmful elements are eliminated. In most cases this can be conveniently done by the use of the jointed supporting splint, or Dow's, which takes the weight of the body upon a perineal strap, but allows the patient free motion at the hip, knee, and ankle. In these recovering cases which present a strong tendency to adduction of the thigh, this may be combated by the elimination of adduction in locomotion, and in all positions, by the use of the perineal crutch bearing in the opposite groin, as described to the section two years ago. The point is to let the patient have the benefit of the local and general tonic effect of walking, without its harmful pressure and strain at a comparatively early period in the treatment, and to adapt locomotion at all times to the needs of each

particular patient. We possess the mechanical means of doing this satisfactorily. Patients are so comfortable, and as a rule, progress so satisfactorily under this treatment, that there need be little temptation to discharge them before a cure is accomplished, even if the supporting apparatus is worn for years. Some of the most satisfactory ultimate results have been after the longest periods of treatment.

The plan above outlined has secured greater comfort and freedom of the patient during a large part of the treatment, and he was convinced a larger proportion of good recoveries, as evidenced by better position, more motion, more perfect repair, and greater usefulness than is usually observed after the other methods of treatment.

DR. JUDSON thought that the apparatus should be removed gradually, the patient being closely observed after each step of relaxation of treatment. Protection from the weight of the body should be the last thing remitted, and the paper had admirably accented the value of the perineal crutch of the Dow's splint in thus protecting the affected and convalescent joint.

DR. W. R. TOWNSEND thought that orthopedic surgeons were pretty well agreed as to the necessity for a gradual discontinuance of mechanical appliances, but just when this removal of apparatus should be begun was a most perplexing question. Where the acute symptoms returned, even after a considerable interval, it was an indication that the apparatus had been removed prematurely, and not that the case had relapsed. Dow's splint, although an excellent instrument, was too expensive for dispensary practice, and accordingly it was the custom in the out-patient department of the hospital for the ruptured and crippled, to convert the ordinary long extension splint into a "caliper splint" by removing the adhesive plasters, and fastening the splint to the shoe, so that it may be used as an outside crutch. Flexion at the knee is next allowed, and this, by developing the quadriceps muscle, results in rapid and marked improvement. After an interval of from three to six months the apparatus is removed, and the patient allowed to go about with a cane for several weeks.

DR. A. M. PHELPS said that the first step in the management of these cases was the treatment of the deformity, and if this were overcome at the outset relapses were very infrequent. He was of the opinion that patients who were allowed to walk upon the old-fashioned hip splint, experienced an increase in the deformity, and therefore he advocated the use of a very high shoe, with crutches, associated with absolute immobilization of the hip joint. Fixation was not secured by the long traction splint, or any other splint which did not pass up beyond the hip joint. The first essential for successful treatment of an inflamed hip joint was rest. Contrary to the teaching of some, among others, Dr. L. A. Sayre, motion did not prevent ankylosis; in fact, it sometimes caused it. Regarding the removal of apparatus, his rule was to re-apply the apparatus if the motion became more limited, but to discontinue its use if motion increased.

DR. ROYAL WHITMAN remarked that the disadvantage of treatment with crutches was, that they were abandoned without the advice of the attending surgeon, and on this account he thought that the ordinary traction splint was the best compromise that could be made, especially for dispensary practice.

THE CHAIRMAN said that in the matter of the removal of apparatus, each case must be a law unto itself. The Dow's instrument had proved very successful in his hands, but some years ago he had

been in the habit of employing the old traction splint, by stitching the buckles to the shoe. The disadvantage of this arrangement was that sometimes it produced traumatism. More recently he had made use of a modified Dow's, with perineal band, perineal straps, and snap-joint at the knee, and so adjusted within the shoe that a certain amount of traction could be secured without the use of adhesive plaster.

DR. TAYLOR, in closing the discussion, said that he did not claim that the long traction splint gave perfect fixation of the joint, but as he believed that counter-traction was practically more important than positive fixation, he favored the former method in the acute stage. He agreed with Dr. Phelps on the necessity for overcoming deformity at the beginning of treatment, and this could usually be done by physiological methods. When to discontinue all treatment was a matter for individual judgment; if motion increased after the patient's discharge it was a good indication that the step had not been taken too early. The treatment outlined by Dr. Townsend was excellent, and apparently the working out of an idea, similar to that set forth in the paper. The point to be emphasized was that it was not necessary to deprive the patient entirely of locomotion until he was completely cured, but that by selecting those elements of locomotion suitable for him he might enjoy the tonic effects of walking, with due protection to the joint, during the greater part of the treatment, and this protected walking should be continued a long time if necessary.

In answer to a question as to when he would ordinarily apply the Dow's instrument in very young children, Dr. Taylor said that he thought the average time was about six months of treatment with the traction splint.

A NEW AUTOMATIC TRACTION HIP SPLINT.

DR. T. HALSTED MYERS presented such an instrument.

It consisted of the ordinary long traction hip splint, made with a short sheath and long extension-bar, with the addition of a second sliding foot-piece, to which the leg plasters are attached, and of an adjustable spring to exert the traction.

The second foot-piece slides on the extension-bar only. Around and above this is a spring, about eight inches long, whose pushing power is regulated at will by a movable circular band, which can be fastened to any part of the extension-bar above the spring by means of a screw.

To adjust the splint, the band above the spring is moved towards the foot-pieces (which at first lie close together, one on the other), till the spring is contracted to the desired extent, and then fastened there. There is now a downward pressure on the sliding foot piece, of the desired amount. The splint is next applied to the patient, the upper foot-piece buckled to the plasters, so as to touch the sole of the shoe. The extension-bar is now keyed out, carrying the lower foot-piece away from the upper one three-quarters of an inch. This also carries the band above the spring down, and increases the power of the spring somewhat—just how much, depending upon its length, the distance between its coils, and the weight of the wire.

When the weight of the body is carried by the splint, any tendency for the straps to bag is overcome by the downward traction exerted by the uncoiling spring, and thus a more equable traction is exerted than has heretofore been possible.

The Chairman referred to a somewhat similar spring apparatus which had been devised by Dr. N. M. Shaffer. At the first meeting of the American Orthopedic Association, the speaker had exhibited a very simple arrangement which he had devised. It consisted in using a strong piece of band rubber, buckled into the traction straps, instead of the usual leather straps. He had found its action satisfactory.

DR. JUDSON said that the relaxation of the straps at the foot of the hip-splint had been frequently discussed. He thought it was best obviated by providing an apparatus as nearly inflexible as possible. Also, if the pelvic band is worn at a high level the strap, being long and deeply curved, allows the patient's body to descend, when he stands, further than it would if the pelvic band was at a low level, and the strap crossed it in a direction more nearly horizontal.

But it is questionable whether the relaxation of the straps is of serious moment, because, when the patient stands, the traction made by the weight of the leg takes the place of the traction previously made by the adhesive plasters, when the patient was recumbent, and is practically much greater and more equable and comfortable.

The joint may be "pumped" when the patient walks without any apparatus, because it is subjected to, and relieved from, the weight of the body above and the weight of the limb below at every step. Or, pumping may occur when the patient, wearing the splint, repeatedly lies down and stands up, because then there is an alternation between the great weight of the limb, which produces traction when the patient stands, and the force of mechanical traction, which is comparatively small, and takes effect when the patient is recumbent. The only pumping which the joint gets when the patient walks with the hip splint is that which comes from the recurrence and removal of the weight of the splint attached to the limb by adhesive plasters. This interference with the repose of the joint should be conveniently prevented by suspending the splint from the opposite shoulder by properly adjusted webbing.

DR. TOWNSEND said that the "pumping" action to which the previous speaker had alluded was one of the great objections urged against the long traction splint. He was much pleased with the new splint which Dr. Myers had presented, but he thought there would be much less heard of this sagging of the straps if attention were paid to the adjustment of the splint in the erect, as well as in the recumbent, position.

DR. TAYLOR agreed with Dr. Judson as to the part played by the splint and band in causing this sagging, and, therefore, if the band were discarded, and in its place some substitute like the one which had just been exhibited by him in connection with the Dow's instrument, part of this trouble would be obviated. The traction produced by the weight of the leg is usually sufficient, and, hence, the traction splint becomes a crutch during locomotion, and an extension splint when the patient is sitting or lying. One of the chief advantages of this splint is that it protects the joint in all positions.

A TIMELY suggestion has been offered by a German physician that the date of original preservation be stamped upon each and every can or package containing meat foods. It is held that preserved meats, hermetically sealed, may remain wholesome for a year or so, but that there is danger in the use of such foods after this period.

The Polyclinic.

MEDICO-CHIRURGICAL COLLEGE.

FOR DYSENTERY.

THE case was attended with great pain, fever, tenesmus and feeble circulation; nausea and accompanying vesical tenesmus. He was ordered to remain in bed; to have no food or drink except raw, scraped beef, the white of egg dissolved in ice-water and bovine, to be given in prescribed doses at regular intervals. Every four hours he was given an enema of 8 ounces hot flax-seed tea, with a teaspoonful of Goulard's extract. Internally he took one drop of ipecacuanha wine every ten minutes. The next day he was anxiously inquiring for his dinner. — *Waugh.*

FOR INFLUENZAL VERTIGO.

R.—Tinct. belladonnæ..... m.j.
Tinct. cinchonæ comp..... 3j.
M.—S. To be taken every two hours.

(The pupils were contracted.)—*Waugh.*

FOR CARDIAC DEPRESSION.

R.—Camphoræ pulv..... gr. xl.
Caffeinæ..... gr. xx.
Oleoresin. capsici..... gr. iv.
M. et in pil. No. xx div.
S. One to be taken as needed.

—*Waugh.*

FOR PULMONARY HYPEREMIA.

R.—Pilocarpinæ hydrochlorat..... gr. j.
Camphoræ pulv..... gr. x.
M. et in granul. No. x div.
S. One every hour until free perspiration occurs.

Apply a small blister over the seat of pain (the right second intercostal space, at the edge of the sternum), and envelop the chest in flax-seed poultices. — *Waugh.*

The influenza undoubtedly prevails in Philadelphia, though as yet its manifestations are wanting in several important particulars. Among the cases that have seemed to be due to this epidemic influence were several of acute and very painful lumbago, without apparent cause, coming on suddenly and giving way but slowly to treatment. Violent headaches also occurring suddenly and causelessly, have brought to mind the scenes of the last epidemic. Cardiac depression has been so generally present that acetanilide has been laid aside for ammonia and camphor. Phenacetine has proved most effectual as an analgesic, given in doses of five grains every two to six hours. There is as yet no elevation of the mortality rate. — *Waugh.*

DIPHTHERITIC PARALYSIS is due to a neuritis occasioned by the circulation of the toxalbumen of Brieger and Fränkel in the blood. This body is a direct product of the Klebs-Löffler bacillus. Quite as many die with low temperature as with hyperpyrexia. Frequent examinations of the heart give better prognostic data. Weakened cardiac power is shown by an irregular, small and rapid pulse; while a progressive slowing of the pulse, and a loss of the relation between pulse and fever, are suspicious signs.

Burnett, *Kansas City Med. Record.*

The Times and Register

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AND NOW, WHAT?

THIS is the question that presents itself at present to the newly-fledged doctor in medicine. He is very numerous this year; he is also of much better quality than heretofore; and he is now looking anxiously for a field in which to utilize his talents for the benefit of mankind—himself included. It is doubtful if, in this great land, there exists a single corner that is not fully supplied with all the doctors it is able and willing to support; and the first lesson the new-comer must learn is that he must meet with competition. He must now enter into that cruel, remorseless struggle for existence wherein one must prove his manhood; must demonstrate his ownership of mental strength, of tact, of policy, of wisdom in planning and persistency in adhering to the plan, as well as of the needful skill in things medical, surgical, obstetrical, *et cetera*.

Nevertheless, things are not so unfavorable as they appear at first sight to the new comer. The armor of his predecessors is rarely so complete as to leave no vulnerable point. The discipline of the modern medical course is far and away ahead of that in vogue but ten years ago; and the graduate of 1891 has many golden nuggets of fact that need only the mint stamp of experience.

Among those who occupy the ground are to be found the drunkard, the loafer, and the libertine; the sour man, embittered by real or fancied wrong; the chronic failure; the man who has found other interests that have subtracted a part of his time from practice. This is the worst mistake a physician can make. The medical profession is a jealous mistress, who demands all one's time and all one's thoughts; and whatever detracts from this singleness of purpose lessens the chance of success. Besides this, among the higher class of practitioners, one will find that many have realized their full share of success, or, at least, experience that relaxation of energy that comes with years; and these also give the younger man his opportunity.

Ethical questions will perplex the beginner, especially as he sees the greatest sticklers for the "code" ready to do things that no code could approve, although not specifically forbidden by that of the A. M. A. The code to be followed is that dictated by one's own conscience; the rule of life is to act as befits an honorable, Christian gentleman, and beyond this there is no essential. In minor matters one should be governed by the usages of the community. In small towns the doctor is expected to put his professional card in the newspapers; in the city this would ostracize him. A modest sign befits the Philadelphia physician; in Paris no sign is permitted. In the cities, where success is best worth having, it is most difficult to obtain. The hospitals, clinics, and dispensaries struggle to divide the patronage with the retail druggist; and the doctor's share is the little that is left. Undoubtedly the best mode of competing with these is by dispensing one's own medicines; and this, thanks to the tablet triturates and coated pills, is now an easy matter. The Provident Dispensary has not yet obtained a footing here; but it is only a question of time, as it offers the best means by which the beginner can hold his own against his powerful competitors. It was bitterly opposed in London, but has won a place there, the nature of which may be understood by the following extract from *The Lancet's* editorial columns:

The subject of Provident Dispensaries is coming powerfully to the front in connection with the acute criticism which is being brought to bear on the out-patient department of hospitals. The result of all investigations of a searching character into the out-patient department is to show that it is greatly abused by persons who are not ill enough or poor enough to need the paraphernalia and the gratuitous aid of a great charity. These persons will have to be excluded if medical charities are to continue to receive the support of the benevolent. And if they are to be excluded, means must be provided for their treatment on independent, though at the same time practical, terms elsewhere. This is the problem before the public, and especially before the profession. Those who crowd the out-patient department cannot do without medical aid. It is perhaps natural that they should go to the out-patient department, where they expect to get for nothing the advice of consulting surgeons and physicians. But this is a use of medical charities that was never contemplated, which has become demoralizing to the people, and highly injurious to the profession. The problem is to devise an alternative that shall preserve the independence of the people and have some regard to the interests of the medical profession. For, after all, it is the private members of the profession in general practice on whom the burden of all onerous sickness of the working classes falls. They have to be on duty night and day, to face infection in the close apartments of the poor, and to be their neighbors and friends in every emergency.

The general remedy suggested for hospital abuse is the Provident Dispensary. Whether in London, Birmingham, Manchester, or elsewhere, these institutions are not only lauded, but they seem to answer—to meet, in a certain degree, the wants of the case of those who are pronounced by general consent to be unfit for hospital relief.

ONE of the latest proposed applications of electricity is a policeman's club that contains a galvanic battery. When the rowdy seizes the club, thinking to wrest it from the policeman, the rowdy receives an electric shock which astonishes and paralyzes him, rendering his capture easy.

Annotations.

CO-EDUCATION OF THE SEXES IN MEDICINE.

ON March 11 the German Reichstag refused the petition of women for admission to the medical schools. The advocates of the measure, however, manifested such strength that it was freely admitted that the minority would be transformed in future into a majority.

"The immediate aspect of the question is as follows: There are no State regulations which in any way hamper the practice of the medical profession by women; but, then, no provision is made by the State to provide for the necessary training of women, or for their examination. The German Universities and Gymnasias are concerns of the individual States, and in the regulations of medical examinations, there is no word of reference to the examination of women; and if the Universities deny admission to women students, or decline to test their proficiency, the national regulation which authorizes them to practice is operative in so far only as that it permits them to practice as uncertificated persons. The misrepresentations to which persons thus practicing expose themselves are eminently designed to deter scientifically educated persons from exposing themselves to them. There are, it is true, solitary instances of women who have been permitted to attend special branches of the University course, and to submit themselves for examination, especially at the University of Leipzig, but these permits being solely matters of privilege and favor, their acquisition is attended with much difficulty, and the Imperial government has, so far, declined to move in the matter.

"In its present aspect the problem narrows itself mainly to the duty of the Empire to facilitate the study, and provide for the examination of women at the German Universities. 'When the Imperial government,' said Deputy Schrader, 'has once sanctioned the practice of the medical profession by women, its duty to provide facilities to enable women to avail themselves of the concession goes without saying.' At any rate, this duty has been recognized in the University of the Reichsland (Strassburg) which, on account of the general good tone prevalent there, and the earnest and seriousness with which the students devote themselves to the course, is an institution incomparably superior to most others for female students.

"The contentions of the speaker that the suitability of women for the medical profession, at least for certain important branches of it, as the treatment of women, and of children in tender years, has now commanded universal recognition; and that the experience of England and America has demonstrated that the co-education of the sexes exerts an ennobling moral influence,—opened a broad vista, which somewhat terrified the more conservative members of the Right, who conjured up visions of women on the judicial bench and in the sacred halls of the Reichstag, and wondered what the world was coming to."

The number of colleges admitting both sexes to their classes is increasing; and the result has not proved as objectionable as was expected by the opponents of this measure.

¹ *Die Nation* quoted in *Literary Digest*.

THE INSPECTION OF MEAT FOR EXPORT.

CONGRESS has passed a bill providing for the inspection of meat and cattle for export. An inspector is to be stationed in each port whence meat is shipped to foreign countries. It is probable that this will cause Europe to raise the embargo she has laid on American meats, as Germany has already done. This will raise the cost of meat at home; and, as no inspection is provided for meat intended for home consumption, it follows that all meat that cannot bear inspection will be retained for our own use. The prospect is not a pleasing one. Why did not Congress take our own interests into account, as well as those of the great cattle and beef barons? Already there has been an advance in the prices of meat, and, as other European countries follow the example of Germany, a further increase may be expected. Municipalities will be forced to provide inspection; but in the country this will be too expensive to be practicable.

In the meantime, Dr. Huidekoper is a candidate for the Philadelphia inspectorship; and it is to be hoped that the Government will appoint him, or some one equally capable, if he can be found.

DR. HOBART A. HARE has been elected Professor of Therapeutics at Jefferson Medical College, to fill the vacancy left by the retirement of Prof. Bartholow. Dr. Hare is a young man for so responsible a position, being still under thirty. He has been an industrious writer, and has given such evidences of ability as fully justified the Trustees in their selection. With the development of a new system of instruction, in carrying out the plan of a graded course, he will have full scope for the display of his talents.

It is due to Prof. Brubaker to state that he made no personal application for the position. Dr. Brubaker was called upon last fall, after the term had commenced, to fill Dr. Bartholow's position. He found a large class, many of whom were discontented with the loss of a favorite teacher, and hence not likely to be well-disposed to his successor. Under these trying circumstances, Dr. Brubaker acquitted himself as no ordinary man could have done, winning the hearty good-will of the students, and discharging his duties to the satisfaction of his colleagues.

HYSTERICAL AORTA is the misnomer applied by Dr. Sarah E. Post (*Med. Record*) to a case presenting the following symptoms: A woman, thirty-five years old; pregnant; vomiting bloody mucus; profound depression; hectic flush; gastric intolerance; an epigastric tumor formed by the aorta visibly pulsating; uterus retroflexed; occasional epistaxis; tongue dry and cracked. Rectal alimentation was instituted, the uterus replaced, and the vomiting controlled; but the stomatitis and pharyngitis continued, the tongue ulcerated, and the patient died of debility. Autopsy showed a blighted ovum in the uterus.

The most obvious explanation of this case is that the "cachexia as pernicious as carcinoma" was due to the absorption of toxic matter from the blighted ovum. Just what connection either hysteria or the aorta had with the case is not manifest.

DR. J. M. BALDY, of Philadelphia, has been elected Professor of Gynecology in the Philadelphia Polyclinic and College for Graduates in Medicine.

Letters to the Editor.

A CASE.

THE following case I want to report for suggestions: Woman aged fifty years. One year ago attacked with la grippe. Recovered in three weeks, leaving catarrh of the bronchi. Some cough, with abundant thick, creamy sputa, has persisted since.

Three months ago the sputa began at intervals to be slightly pink, the color increasing to a deeper red, resembling a bloody pus. This is not constant, but appears one or two days in the week. The cough is no feature in the case, and is not troublesome day or night. Condition of patient good; weight increased; appetite and sleep normal; larynx perfectly healthy. Have used the usual remedies without success, and will be greatly obliged for suggestions.

EMILY MCBRIDE YEARGAIN, M.D.

AGNEWS, CAL.

VESICAL SYMPTOMS INDUCED BY FECAL IMPACTION.

A FEW weeks ago I was called to see a boy four or five years old, complaining of great difficulty in passing urine. He was playing about as usual, and his father stated that he strained a great deal in urinating, at times standing ten or fifteen minutes before the urine would begin to flow. His temperature was normal; tongue clean; no tenderness over the pubic region or in the perineum; the glans penis perfectly normal. I noticed that he flinched when I pressed over the left kidney. I procured a specimen of his urine, which I examined, and found normal.

I concluded, then, that his dysuria was due to a slight catarrhal trouble about the neck of the bladder, and ordered an appropriate remedy. The next day I was called to see him again, and found him in nearly the same condition, only there had been some nausea and vomiting. This time I was informed that his bowels had not acted in a week, according to the boy's statement. His parents could give no information in regard to that on my first visit. A second examination showed the rectum and sigmoid flexure of the colon impacted with hardened fecal matter, which, of course, by pressure had produced the bladder symptoms. Two injections of soap suds, possibly aided by a dose of castor oil, which they had given some twelve hours previously, entirely relieved the impaction. I thought my first examination was thorough, but the sequel showed that it was not. The moral is plain.

N. P. HACKETT.

ELMONT, TEXAS.

EXFOLIATION OF BONES.

YOURS of 14th inst. to hand. The slip enclosed, printed in Greenville, Tenn., April 9, has many inaccuracies, but in the main features, relative to anomalous exfoliation of bones from hand, forearm, scapula and inferior maxillary, is correct. This exfoliation, if the term exfoliation is admissible, is always spontaneous, but is attended with much pain, though not preceded by, accompanied with, or followed by, the least indications of inflammation, induration or suppuration. The wounds made by the exit of bone always heal by first intention. Bones break with a clear, vitreous fracture, have sharp cutting edges, are of almost every imaginable shape. Some sections are transverse, some diagonal and others longitudinal.

Entire transverse sections of ulna and radius, two and one-half inches long, with articulating surfaces complete, have been spontaneously expelled, and yet no deformity has followed. My report of this very novel and exceptional case, as read to the East Tennessee Medical Convention, and by the convention ordered to be given to the medical press, through the medium of its secretary, J. B. F. Dice, M.D., of Morristown, Tenn., has not yet been published, but I suppose will be within a reasonable time. When this shall have occurred I will be pleased to hear from you and others upon a subject much too abstruse and metaphysical in all its features to admit of a ready and easy analysis even by our most astute diagnosticians.

BENJ. F. BELL, M.D.

PARROTTSVILLE, TENN.

THE NEW ANTIPYRETICS.

MY experience with the newer synthetical antithermics and analgesics, such as antipyrin, antifebrin, antikamnia, phenacetin, etc., during the last twelve months has been considerable.

After having tested each one of them thoroughly, I am fully satisfied that phenacetin is the safest and best. I have given it in doses amounting to 5 grammes daily, without any bad effect whatever.

Antifebrin is nearly as good in its therapeutic effects, but it is not near so safe. In one case only have I witnessed alarming toxical symptoms resulting from its use.

This was the case of a very nervous young lady who had been sitting up several nights watching by the bedside of her very sick mother. In order to allay her excessive nervousness I gave her 8 grains of antifebrin, carefully prepared. This was 1 o'clock P.M. In one hour thereafter she was as soundly asleep as if she had taken 1 grain of morphine. Indeed, it was with much difficulty that we could arouse her at all.

The main toxical symptoms were as follows: The skin was cold, blue and somewhat moist with perspiration; the hands and arms up to the elbows were of a dark purple color; the finger nails were dark blue; the feet and legs were slightly purplish; the lips and gums were, like the nose and chin, quite blue; the respiration was very irregular, jerky and shallow, varying quickly from 8 to 30 per minute. The heart's action was feeble; regular in rhythm, but irregular with regard to its frequency, beating for some minutes at about 80 per minute, and then, suddenly becoming greatly accelerated in its action, would run up to 120 per minute. The eyes were tightly closed throughout the entire period of time in which the more prominent toxical symptoms prevailed.

The condition of the young lady presented nearly all the more characteristic symptoms of a person suffering from an insufficiency of oxygen; an inability to breathe, either from constriction of the trachea or from want of power to work the respiratory apparatus.

Almost complete asthenia prevailed for about five hours, after which the toxical symptoms gradually passed off, and were entirely gone in ten hours, or in about eleven hours from the time in which she took the dose.

After she had fully recovered from the influence of the drug she was as cheerful and bright as if nothing had happened; indeed, she could not recall anything that had transpired during the last ten hours.

I was with her during the entire time, and feeling satisfied that the toxic symptoms would wear away I administered no antidote, but watched her closely and had her position in bed changed frequently, allowed her all the air possible, and had her face bathed frequently in cold water.

I think this case illustrates fully the toxic effects of antifebrin. I cannot say what the result would have been if a larger dose had been given.

In mania a potu I have seen phenacetin produce promptly the uttermost composure after very large doses of morphine, chloral and the bromides had been tried in vain. In other mental and nervous perturbations, and in insomnia resulting from and dependent upon poor digestion, and upon neurasthenic conditions of the system, phenacetin has yielded, in many cases, better results in my hands than any other sedative.

As an antirheumatic it is equal to, and in many instances surpasses, the salicylates and salicylic acid. As an antithermic, in the hyperpyrexia conditions of typhoid fever, and in other fevers, its effect is all that can be desired. Indeed, the only thing that can be charged against phenacetin is its high price, costing nearly five times as much as antifebrin, and nearly six times as much as acetanilid.

In treating the neuralgic and hyperpyrexia conditions of persons ill of the late epidemic of la grippe, so-called, I used scarcely anything but phenacetin and antifebrin, to the almost complete exclusion of opium or any of its derivatives, and in every case with complete success.

ARTHUR C. DAVIDSON, M.D.

SHARON, GA.

Book Notices.

ELECTRICITY: ITS APPLICATION IN MEDICINE. By WEL-
LINGTON ADAMS, M.D. Vol. I. The Physicians' Leisure Li-
brary. Detroit: Geo. S. Davis. Paper, pp. 113; price, 25 cents.

The book is misnamed, as it treats of the principles rather than the practice of electricity; currents, forces, battery-cells and meters. The mechanic may be satisfied with knowing when and how to apply his poles to produce a certain result, but the scientifically constructed mind will want to know more than this; the nature of the force he is applying, the laws that govern its action, the why and the wherefore. This is what Adams' book supplies, and does it well, as far as it goes. More we cannot say until the remainder of the work is before us.

TAKING COLD.—By F. W. BOSWORTH, M.D. Physicians' Leisure Library. George S. Davis, Detroit. Price, 25 cents, paper; 50 cents, cloth.

If you wish to floor the recent graduate, interrupt his disquisition on multiple neuritis, and ask him about the pathology and treatment of taking cold. But the old practitioner as well will find Dr. Bosworth's book instructive.

THE JOURNAL OF COMPARATIVE NEUROLOGY.—A quarterly periodical devoted to the comparative study of the nervous system. Edited by C. L. Herrick, Professor of Biology, etc., in the University of Cincinnati.

The contents of the March number are: Contributions to the Comparative Morphology of the Central Nervous System, by C. L. Herrick; I. Illustrations of the Architecture of the Cerebellum, with plates; II. Topography and Histology of the Brain of Certain Reptiles, with plates; Laboratory Technique; Morphology of the Avian Brain, by C. L. Turner, with plates; Editorial; Literary Notices; Bibliography.

The Medical Digest.

BANNERMAN administered arsenic to two companies of Indian troops that had been for three years exposed to constant malaria. Three to ten minims of liquor arsenicalis were given daily to each man. The number of cases admitted for malaria increased during the three months' duration of the experiment, though in the companies not treated by arsenic the increase was still greater. The only deduction warranted is that the arsenic was not given in sufficient quantity, or else it has little or no value.

LINIMENT FOR BRUISES:

R.—Tr. capsicum..... 2 parts.
Tr. myrrh..... 2 parts.
Tr. opium..... 2 parts.
Tr. guaiac..... 1 part.
Sp. camphor..... 8 parts.

M.—This is similar to Perry Davis' Pain Killer. A much more powerful one is:

R.—Tr. aconite.
Tr. opium.
Chloroform.....āā 1 part.

M.—Shake well before using.

Whelpley, *K. C. Med. Index.*

TELLURATE OF SODIUM IN SWEATING OF PHTHISIS.—Combemale has used tellurate of sodium, in phthical and other sweating. It was first recommended by Neusser who gave one-third or two-thirds of a grain in pill once daily. Combemale gave it up to nearly one grain per dose, and tried its effects in eleven cases. His conclusions are:

1. It is a powerful anti-studorific.
2. A dose of nearly one grain gives the best results.
3. It gives rise to digestive troubles, and especially to a strong garlic odor in the breath.

All the compounds of tellurium cause a very disagreeable odor in the breath, and this must always be a bar to their employment, as it is very persistent and disagreeable.—*Brit. Med. Jour.*

A FORM OF GINGIVITIS COMMON TO DOGS AND MEN IN INDIA.—This form of gingivitis is characterized by:

- (a) A bright red velvety condition of the gums;
- (b) its almost invariable limitation to the front of the mouth;
- (c) the ulceration that surrounds the bases of the teeth (incisors as a rule), which process in advanced cases continues to extend, destroying the alveolus and exposing the fangs, until the teeth remain but loosely attached or drop out;
- (d) the tendency to hemorrhage on pressure or the slightest injury;
- (e) the occurrence of an exactly similar process in dogs, remarkably limited in them to the incisors and canines, whereby their small front teeth are frequently lost;
- (f) the acid re-action of the mouth;
- (g) the fetid odor given off.

Pathology.—Microscopic examination of material scraped off from the ulcerated gums show the presence of leptothrix buccalis in large quantities, of innumerable spirilla and micrococci, together with common bacteria, squamous epithelium, and more or less destroyed leucocytes and blood corpuscles. The accompanying illustrations show these various growths.

The red velvety not swollen condition of the diseased gums is easily distinguishable from the swollen sponginess of scurvy, where the gums show a tendency to overlap the teeth. The limitation of the gingivitis to the front of the mouth is a very marked feature.

—Roberts, *Indian Med. Gazette.*

SINCE the discovery by Neisser, in 1878, of the gonococcus, and the establishment of its relationship to this disease, but one opinion can logically be held by those who accept his theory of gonorrhœal inflammations, and that is, that all secretions containing this micro-organism are capable of transmitting the disease under favorable conditions. In his work under this subject, Ernest Finger emphasizes this point, and states regarding marriage, that it should be absolutely prohibited in all cases where the existence of a chronic urethritis is evidenced by the presence of the "morning drop" in the urine, until the following facts have been established:

1. That after from two to four weeks of daily observation, the secretions from the urethra are found to be *free from pus and made up wholly of epithelial cells*.
2. That no gonococci can be detected by the microscope, even after a purulent discharge has been established by the employment of irritating injections of corrosive sublimate or nitrate of silver.
3. That neither prostatitis nor stricture exists.

—*Med. Age.*

COMPOUND FRACTURES.—In the treatment of compound fractures what a change antiseptic and a septic surgery has wrought. It used to be that compound fracture meant suppuration, septicæmia, amputation and perhaps death. How is it now? Thorough cleansing of the wound with hot dry towels, if it is filled with dirt, then dusting the raw surfaces with iodoform, then a layer of sterilized gauze, then a layer of oakum and a layer of cotton, both freshly sterilized by heat and all fastened by a roller bandage, a fixation splint and a restful position is all that is needed to make the wound heal, the bones unite with little or no more trouble than a simple fracture.

No chemicals need be used. Keep everything dry. Have your gauze as dry as a hot oven can make it just before it is applied over the wound. Have all other dressings treated the same way. If there is much comminution of bone and laceration of the soft tissues, put a drainage tube, sterilized of course, in the most depending part of the wound. Cover the protruding end of it so thoroughly with gauze, oakum and cotton, that while they absorb the fluid from the tube they will effectually plug it so that the germ laden air cannot find access to it.

—*Detroit Emergency Hosp. Rep.*

ABSORPTION OF IRON.—Socin says the absorption of iron is known to occur in the alimentary canal, some believing that the iron enters by the lymphatic vessels, and that its secretion occurs at the kidneys in the urine. The methods employed in the determination of the iron are given in detail, as also a series of experiments upon dogs and mice. With the mice the experiments were conducted with great care, five different varieties of food being given: (1) food absolutely free from iron; (2) the same iron-free food with hæmoglobin added; (3) the same food, but with hæmatogen added; (4) the same food, but with the addition of ferric chloride; and (5) ordinary hard-boiled yolk of egg, together with iron-free starch, cellulose, and water. Of his series of experiments, these are the results: (1) the organic iron combinations of yolk of egg are absorbable; (2) filtered urine, when ordinary diet is taken, contains no proportion of iron quantitatively estimable; (3) serum albumin prepared from hæmoglobin-free serum is devoid of iron; (4) it is as yet impossible to prepare an artificial diet containing all the food stuffs essential to life; (5) simple comparisons of the quantity of iron in the food and

the excreta, respectively, leave as yet the question as to the relative absorbability of iron combinations undecided.—*Brit. Med. Jour.*

THE GYNECOLOGICAL LARYNX.—The most difficult cases the laryngologist has to contend with are diseases of the throat caused by disturbance of the ovaries. It is common to meet cases of acute inflammation of the tonsils, larynx, pharynx and fauces in females during their menstrual period. I have observed the voice, in singers who have applied to me for treatment during the menstrual period, defective in gravity, force, and timbre, producing a husky sound of a low masculine order.

A laryngologist of acute hearing who will train his ear to the recognition of sounds and acquaint himself with a known voice, can detect a menstruate nine times out of ten. All prima donnas try to avoid engagements during their periods. It is recognized from time immemorial that extirpation of the testicles will greatly change the voice in males.

The finest male chorus I ever heard was by a band of eunuchs at St. Petersburg, who were prepared for that purpose. Born eunuchs, or hermaphrodites, generally have voices of feminine order, but do not make good singers on account of their sluggishness and want of animal propensities. It is said that in order to make a good singer one must be in love. It is indisputable that impediments in the male organs influence the male voice; so, too, impediments in female organs influence the female voice.

In many cases of ovarian disturbance, enlargement and hypertrophy of the tonsils and of the soft palate are observed; hence the laryngologist oftentimes can accomplish little without the assistance of a competent gynecologist.

—Von Klein, *Jour. Am. Med. Assoc.*

DIPHThERIA.—It should be clearly held in mind by those eager to draw from experimental studies on the etiology of this disease such practical lessons as shall be of value in treatment, that whether one or more causative agents are at work in setting up those acute infectious diseases which are associated with the formation of a pseudo membrane, it seems to be fully established that in all of the cases the seat of infection and the origin of the mischief is always a local one. All these experiments point to the paramount importance of efficient local germicidal treatment, and this is equally important whether the bacillus of Loeffler, or the streptococcus, or both together, be the infecting agent.

It is the complicating broncho-pneumonia and the systemic poisoning which carry off a large proportion of the victims of pseudo-membranous pharyngitis and laryngitis. That the pneumonia is largely dependent, in many cases, at least, upon the streptococcus, which is so frequently present, seems pretty well established. How much of the systemic affection is due to the streptococcus when this is present in the membrane and in the viscera, as is so often the case, and how much to a poisonous material absorbed from the seat of growth and development of the Loeffler bacillus in the local lesion, it is not possible at present definitely to say. That the poison locally produced by the Loeffler bacillus can and usually does alone cause the characteristic systemic effects in primary diphtheria, is well established.

It seems to the writer that a simple "Liquet" may be uttered on this subject, not as Loeffler believes when such experimental results as seem at the first sight to be out of harmony with his conclusions "shall

have been shown to be incorrect," but when they shall be judged on the basis of a definite nomenclature and apart from the thrall of a too limited conception of the nature of those acute infectious diseases which have not a wholly definite characteristic and constant local lesion.—Prudden, *Med. Record*.

RHEUMATIC FLAT-FOOT.—J. G., aged thirty, is a car conductor, of previous good health. Eighteen months ago he had an attack of inflammatory rheumatism. Nearly all the joints were swollen. He was ill for six months. He then began to go about. The feet began to show deformity, and to give him great pain. There had previously been no flattening of the feet. When I first saw him the feet were greatly deformed. They were swollen, rigid and flattened. The extensor muscles of the toes were in a state of spasm. The reflexes of the feet and legs were increased. There was no motion at the ankle, nor lateral motion in the tarsus. There was atrophy of the calf muscles, the leg measuring but ten inches in circumference. The disability was increasing rapidly. Under ether the displacement of the tarsal and metatarsal bones was corrected; and foot plates were made. The mobility and usefulness of the feet have increased, and although there is still much to be done before the patient will be able to resume his work, the outlook is favorable.

There is a considerable number of cases in which, after rheumatism, the deformity is slight or wanting, but the disability is great. Sometimes this disability is due merely to the arthritis which persists after the disappearance of the disease. Often it is a combination of arthritis and those conditions, which, for the want of a better general term we call flat-foot. Great relief can be afforded in many of these cases, by supporting the arch of the foot, and I believe there is no better way of doing this than by Whitman's plates.

The reasons for the appearance of flat foot after rheumatism are many. The muscular power of the leg and foot is diminished. The tissues are softened by inflammation. The effort to use the foot with the least discomfort, that is, with the least motion, induces the patient to abduct the feet. The patient swings the feet along with the toes diverging and walks with little or no motion at the ankle. This necessarily throws him upon the inner border of the foot, and on account of the weakened state of the foot is more likely to produce breaking down of the arch. At the same time the abductor muscles by their persistent effort to evert and fix the foot are brought into a state of spasm and become contracted.

Whitman has recently shown that many cases of what is called chronic sprain of the ankle are in reality cases of "persistent abduction" of the foot, which are never relieved until the deformity is corrected, and the foot strengthened and kept in its corrected position.

The point to which I especially wish to draw attention is the importance of correct use of the feet after rheumatic attacks; and the avoidance of such deformity as we have seen in the two cases presented. If patients use the feet while they are still painful, they should be watched to see that they do not do positive injury to them. If disability persists, even though no deformity can be seen, much relief may often be obtained by the use of the foot-plates. The use of the plates should be combined with massage, and appropriate medical treatment as indicated by the case.—Harrington, *Boston M. and S. Journal*.

Medical News and Miscellany.

A NEW leper-house has been opened in Livonia, Russia.

DR. J. H. SCHUTZ, of Pottstown, died at that place April 18.

DR. C. A. L. REED proposes a Pan-American Medical Congress.

A JAPANESE surgeon treats spinal curvature with a jacket of bamboo splints.

THE University of Moscow has introduced electric lights for its clinical service.

THE late census in India shows the population of that country to be 285,000,000.

DR. MARBOURG, a promising young physician of Bedford, died last week of influenza.

THE Yakima Indians are dying off from the combined effects of la grippe and sweat-boxes.

DR. J. C. SUNDBERG takes the place of Dr. D. A. Hodghead, as editor of *The Pacific Medical Journal*.

FOURTEEN patients died April 19 in Bellevue Hospital. Thirteen of the deaths were due to la grippe.

DR. OREN ONEAL repeats Dr. Flick's recommendation of the various preparations of ammonia in influenza.

DIPHTHERIA, la grippe and measles have carried off 200 children from Reading and the surrounding districts.

DR. KOCH's hospital at Charlottenburg is a failure, even free beds being unoccupied, and the place has been closed.

DR. EDWARDS has discovered a Pennsylvanian whose three wives presented him with 41 pledges of their affection within 28 years.

IN the *British Medical Journal* for April 4, we find recorded cases in which varicella and scarlatina co-existed, also varicella and measles.

PROF. J. M. DACOSTA has resigned the Chair of Practice of Medicine at Jefferson Medical College, that he has filled for nineteen years.

A PHYSICIAN in Honduras states that nearly all the children born in that country, male and female, have at birth developed breasts, secreting milk.

AMONG the less desirable immigrants sent to us from the Old World, last week, were cases of typhus fever on the steamer La Bourgogne, and small-pox on the Fulda.

DR. CYRUS EDSON asks whether we have done well in discarding the use of the issue and the seton. Many practitioners have not yet discarded them, and have no intention of doing so.

BILLROTH's opinion is decidedly adverse to Mosetig Moorhof's claims anent the cure of cancer by injections of methyl-violet. The treatment is still continued in advanced and non-operative cases.

UNIVERSITY College Hospital (of London, not Philadelphia) closes its fiscal year with a debt of \$70,000. The Salvation Army is blamed for absorbing funds formerly going into the hospital coffers.

DURING a slight fire in a hotel in Chattanooga recently, Charles Werner, a hoseman, who was putting a stream into a third-story window, received a shock from an electric light wire and fell dead to the ground in the presence of a crowd of spectators.

THE 14th Congress of the Italian Medical Association meets in Siena, August 16 to 21, under the presidency of Prof. Barduzzi.

ABOUT \$1,600 was realized by the Kendal matinee for the endowment of a free bed for actors at the Medico-Chirurgical Hospital. It is hoped that the required sum will be completed shortly, as there is great need for such accommodations.

THE National Association of Railway Surgeons will convene at Buffalo, New York, Thursday, April 30, 1891. This is a change of one week from the time previously announced, the change having been made so as not to conflict with the dates covered by the meeting of the American Medical Association.

WEEKLY Report of Interments in Philadelphia, from April 11 to April 18, 1891:

CAUSES OF DEATH.		CAUSES OF DEATH.	
Adults.	Minors.	Adults.	Minors.
Anæmia.....	1	Inflammation bladder.....	1
Apoplexy.....	16	" brain.....	5
Bright's disease.....	9	" bronchi.....	3
Burns and scalds.....	2	" kidneys.....	9
Cancer.....	7	" larynx.....	1
Casualties.....	7	" liver.....	1
Cerebro-spinal meningitis.....	1	" lungs.....	34
Congestion of the brain.....	2	" pericardium.....	3
" " lungs.....	1	" peritoneum.....	7
" " liver.....	1	" s. & bowels.....	5
Cholera infantum.....	4	" uterus.....	1
Cirrhosis of the liver.....	1	Insanity.....	2
Collapse of the lungs.....	1	Intussusception.....	1
Consumption of the lungs.....	40	Locomotor ataxia.....	1
" " throat.....	2	Marasmus.....	17
" " bowels.....	1	Neuralgia, heart.....	1
Convulsions.....	1	Obstruction of the bowels.....	2
Croup.....	9	Old age.....	19
Cyanosis.....	2	Paralysis.....	5
Debility.....	5	Poisoning, laudanum.....	1
Diabetes.....	1	Perforation of the bowels.....	1
Diarrhoea.....	2	Pneumia.....	2
Diphtheria.....	10	Stenosis of the heart.....	2
Disease of the heart.....	22	Shock.....	1
" " hip joint.....	1	Sclerosis, disseminated.....	1
" " spine.....	2	Scrofula.....	3
Drowned.....	2	Septicæmia.....	2
Dropsy.....	1	Small-pox.....	1
Effusion of the brain.....	1	Softening of the brain.....	2
Embolism, cerebral.....	1	Suffocation, of illuminating gas.....	1
Erysipelas.....	1	Suffocation.....	1
Enlargement of the heart.....	2	Suicide.....	2
Empyema.....	1	Syphilis.....	2
Fatty degeneration of the heart.....	1	Teething.....	5
Fever, scarlet.....	5	Tumor.....	3
" typhoid.....	18	Uremia.....	5
Gall stone.....	1	Whooping cough.....	2
Gangrene.....	1	Total.....	288
Hemorrhage.....	4		186
Inanition.....	1		
Influenza.....	9		

SOME idea of the severity of the New York gripe epidemic, and of its deadly effect in connection with other diseases, will be gained by a comparison of last week's death record with the similar week in five preceding years. Last week there were 1,347 deaths; the average for the five preceding years was 841. Here is an increase of over 500; and week before last the death rate was also abnormal, the record showing 1,216 deaths. It can hardly be doubted that gripe is responsible for this great increase. The report of the Registrar of Vital Statistics shows that last week 179 died of gripe and complications, and that 108 died from the same causes the preceding week. Bronchitis, pneumonia and consumption were the cause of 517 deaths last week and 500 the week before. There were 697 deaths in Brooklyn last week, the greatest number ever reported. This makes the death rate 42.15 in 1,000, or about double the usual rate. Of the deaths 374 were due to pulmonary troubles. The authorities think the turning point has been reached, and that the epidemic is losing its force, as the death list shows a noteworthy decrease since Thursday.

—Ledger, April 20.

IN *The Maritime Medical News*, Dr. Morrow reports a femoral aneurism cured by digital compression maintained for sixty-six hours.

MYXEDEMA has been found in a Thibetan, and of 63 Thibetan prisoners in Sikkim the thyroid gland was found to be notably affected in 36.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from April 5, to April 18, 1891.

By direction of the Secretary of War, the following changes in the stations of medical officers are ordered: Captain Marshall W. Wood, Assistant-Surgeon, is relieved from duty at Fort Meade, South Dakota, and will report in person to commanding officer Fort Preble, Maine, for duty at that post, relieving Captain William B. Davis, Assistant-Surgeon. Captain Davis, on being relieved by Captain Wood, will report in person to the commanding officer Fort Clark, Texas, for duty at that station. Par. 11, S. O. 85, A. G. O., Washington, April 15, 1891.

By direction of the Secretary of War, a board of medical officers, to consist of: Major Henry McElderry, Surgeon; Captain James C. Merrill, Assistant-Surgeon; Captain W. Fitzhugh Carter, Assistant-Surgeon, are appointed to meet at West Point, N. Y., May 1, 1891, or as soon thereafter as practicable, to examine such cadets of the U. S. Military Academy as have been granted leave of absence until that date on account of physical disability, and to report upon their physical fitness to continue with the Corps of Cadets. Par. 2, S. O. 83, A. G. O., Washington, April 13, 1891.

By direction of the acting Secretary of War, leave of absence for six months on surgeon's certificate of disability is granted Major Passmore Middleton, Surgeon. Par. 4, S. O. 81, Headquarters of the Army, A. G. O., April 10, 1891.

By direction of the acting Secretary of War, the leave of absence granted Captain Henry P. Birmingham, Assistant-Surgeon, in S. O. 39, March 13, 1891, Department of the Columbia, is extended one month. Par. 2, S. O. 81, Headquarters of the Army, A. G. O., Washington, April 10, 1891.

By direction of the acting Secretary of War, Captain Jno. Van R. Hoff, Assistant-Surgeon, now in New York City, on leave of absence, is assigned to duty as an additional member of the Board of Medical Officers, constituted by paragraph 18, S. O. 52, March 7, 1891, from this office, to meet in New York City, for the examination of candidates for admission to the Medical Corps of the Army, etc. Par. 6, S. O. 78, A. G. O., Washington, April 7, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending April 18, 1891.

BEARDSLEY, GROVE S., Medical Director. Appointed a delegate to represent Medical Department, Navy, at meeting of American Medical Association at Washington, D.C., May 5, 1891.

FLINT, JAMES M., Surgeon. Appointed a delegate to represent Medical Department of the Navy at meeting of American Medical Association at Washington, D.C., May 5, 1891.

GRIFFITH, S. H., Passed Assistant-Surgeon. Detached from the U. S. S. "Dolphin," and granted one month's leave of absence from date of detachment.

TO CONTRIBUTORS AND CORRESPONDENTS:

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

The Times and Register.

Vol. XXII, No. 18. NEW YORK AND PHILADELPHIA, MAY 2, 1891. Whole No. 660.

ADDRESS.	PAGE		PAGE	LETTERS TO THE EDITOR.	PAGE
VALEDICTORY ADDRESS TO THE GRADUATING CLASS OF THE MEDICO CHIRURGICAL COLLEGE. By E. E. Montgomery, M.D.	359	The Nipples Before Confinement. <i>Marshall</i>	371	Malarial Hematuria. <i>Mason</i>	374
ORIGINAL ARTICLES.		Syphilitic Trouble. <i>Vansant</i>	371	THE MEDICAL DIGEST.	
A REVIEW OF THE TREATMENT OF VARI- COELE. By G. Frank Lydston, M.D., Chicago, Ill.	362	Gout of the Kidney. <i>Vansant</i>	371	The Modern Treatment of Syphilis. <i>Hutchinson</i>	372
THE POLYCLINIC.		Redness of a Structure. <i>Laplace</i>	372	Peroxide of Hydrogen. <i>Gilmer</i>	374
PHILADELPHIA HOSPITAL:		Injection After Removing a Tuberculous Gland. <i>Laplace</i>	372	Gelsmium in Neuralgic Affections. <i>Therap. Gazette</i>	374
Traumatic Aneurism of the Femoral Artery. <i>Deaver</i>	371	The Mucous Membrane About the Rectum. <i>Laplace</i>	372	On Marriage. <i>Birchard</i>	375
Retrodysplacement and Prolapse of the Uterus in Old Unmarried Women. <i>Ashton</i>	371	Baby's Dress. <i>Davis</i>	372	A Country Practitioner's Formula. <i>Preble</i>	375
Displacements of the Uterus. <i>Ashton</i>	371	EDITORIALS.		Dysmenorrhœa. <i>Mulheron</i>	375
Supernumerary Nipples. <i>Marshall</i>	371	UNREFRESHING SLEEP	373	Pyoktanin in Cancer. <i>Meyer</i>	375
Weight of Flabby Abdominal Walls. <i>Marshall</i>	371	ANNOTATIONS.		Antisepsis in Typhoid Fever. <i>Yeo</i>	376
		The Colleges	374	Early Diagnosis of Tuberculosis. <i>Mirinescu</i>	376
		Antipyrine in Epilepsy	374	Intestinal Obstruction	377
		Typhoid Fever In and Near Bethlehem, Pa.	374	Poisoning by Roburite. <i>Spurgin</i>	377
		The Education Supplied by Scotch and Irish Medical Schools	374	MEDICAL NEWS AND MISCELLANY	377
				NOTES AND ITEMS	-iv, xli

Address.

VALEDICTORY ADDRESS TO THE GRADUATING CLASS OF THE MEDICO-CHIRURGICAL COLLEGE.

By E. E. MONTGOMERY, M.D.

GENTLEMEN: Three years, with their changing seasons, have come and gone since first we looked into each other's faces, and entered upon the course which must be fraught with so much of weal or woe to you. Three years of continuous labor, of earnest toil, each day gladdened by tasks accomplished, life's problems solved, and new knowledge gained, until you stand to-day upon the verge of a new departure.

As I glance over your systematic curriculum, in which each year has its prescribed duties—laying a foundation, firm and secure, upon which the succeeding one is to be nicely placed—in which, in the laboratories, you have been permitted to separate organic substances into their elementary parts, to study the normal structures of the tissues of the organism, and witness the pathological changes resulting from the ravages of disease; to peer into the mysteries of nature, ascertain the causes of its disturbance, and consider the methods by which the progress of disease is arrested and its fatal stroke averted; and contrast it with my college course of seventeen years since, with its didactic lectures upon the fundamental branches, supplemented by occasional clinics, I am constrained to congratulate you upon your opportunities. During this period the methods of surgery have been revolutionized, and to-day we stand confronted by an era in medicine when the terrors of many hitherto unconquerable diseases threaten to be dispelled.

As newly-enlisted soldiers, unfurling your banners upon the world's broad field of battle, your hearts

must warm when you consider the achievements of many who have preceded you, and have inscribed their names high upon the roll of honor. On this roll may be seen the names of Harvey, Hunter, Ambrose Pare, Jenner, Wells, Pasteur, Lister, Virchow, and Koch: each of these a hero in the strife, who has borne his banner farther and farther out, and immutably fixed it upon the ramparts of disease. As neophytes in the American Association, you should receive inspiration from a McDowell, a Pancoast, a Gross, a Sims, and a Flint: men whose achievements constrain us to repeat:

"The heights by great men reached and kept
Were not attained by sudden flight,
But they, while their companions slept,
Were toiling upward in the night."

The contemplation of the grand successes of these men but serves, I hope, to awaken in your hearts an ambition to imitate their noble example, and earn for yourselves places in the world's future history. Your presence upon this stage to-day, and the bestowal upon you of the degree by our esteemed president, is an evidence that you are ready to enter the portal of the time-honored profession of medicine. Of its members, Robert Louis Stevenson, himself an invalid, has kindly said: "There are men, and classes of men, that stand above the common herd, the soldier, the sailor, and the shepherd, not unfrequently; the artist rarely; rarer the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and, what are more important, Herculean

cheerfulness and courage. So it is that he brings air and cheer into the sick room, and, often enough, though not so often as he wishes, brings healing."

What greater encomium could be wished? Having completed your college course, you are confronted with the anxious question, "What of the future?" What measure of success is to reward your labors during the remaining years of life.

Success, like the ancient trophy shield, will depend much upon the standpoint from which it is viewed. One will regard the attainment of honor and influence through the acquisition of great wealth as the acme of success. If there be such among you, let me assure you that you have mistaken your calling. Medicine is a jealous goddess; she bestows not her favors upon him whose affections are engrossed with the mere love of lucre. Another, from pure love of truth and science, is content to delve in the quarries, to bring forth treasures to enrich the fund for the benefit of mankind. For such there are still rich mines, the value of whose treasures has never been explored. That among these are the names of those whom the world loves to reverence is evident from the fame of Virchow, Pasteur, and Koch.

Another class endeavors to dip deeply into the treasure house of knowledge, and place in practical use, for the benefit of their fellow-men, the pearls of wisdom therein contained. Their lives are spent in self-sacrificing devotion to others, and much of their reward comes from the assurance of distress relieved and burdens lightened.

I feel assured that the majority of you whom I address to-day will, from inclination, be found in the last class, and that we cannot do better than devote ourselves to the consideration of what we esteem as essential to the attainment of the highest success. As a foundation stone, upon which you should now fix your feet, we would place self-confidence, or faith in your ability to accomplish the purposes you undertake. What is more despicable than to see a man engage upon a vital work, lacking confidence in his ability to complete it? He is like the storm-tossed mariner, with compass lost, moving hither and thither at the mercy of the waves. He acts from no fixed motive; his diagnosis of disease is imperfect, without logical foundation, and subject to frequent change; his methods of treatment are uncertain, without reason, and consequently empirical. As a surgeon, he is hesitating, devoid of resource, and incapable of conducting other than the most simple operations to completion. "Confidence begets confidence;" the man who lacks it finds it difficult to inspire it in others.

It is said there can be no doctrine enunciated so extravagant that it will not attract believers, if it be presented with the energy and zeal born of faith.

We need but to glance over the financial world to observe how men will haste to place their money in impossible gold mines, improbable bonds and securities, and imaginary Edens, when presented and advocated by men who seem to believe in them.

Confidence is the guarantee you offer that you will accomplish your undertakings. To be accepted at its full value it must be associated with character. Character is the subject of growth and the result of continued accretion. It has been defined as the slow spreading influence of opinion, arising from the deportment of man in society. As such it registers every blemish as a stain which shall be discerned by those who watch your career. In erecting this structure, remember, that—

"In the elder days of art
The builders wrought with greatest care,
Each minute an unseen part,
For the gods see everywhere,"

and so build that your work may not only bear the scrutiny of men, but receive the commendation of Him who discerns the motives and underlying principles of our actions.

The ancient Egyptian well said that "Before virtue God has placed toil," and, "Life is no meal served up for our enjoyment by Providence, but a service upon which we must expend our best force."

"Let each one test his nature and endowments, and the better he will succeed in using them for the weal of the whole body—as a member of which he came into the world—the higher will rise his inward bliss, the more surely will he attain to serenity of soul, the fewer terrors will death offer to him. In the consciousness of having scattered seed for the future, like a faithful householder, on the evening of each day, he closes his eyes at the end of the hour allotted him on earth."

With character, then, your guarantee is accepted without further indorsement. It is true, the unscrupulous quack, by attractive advertisements, skilfully worded to awaken the fears of the timid and to excite the hopes of the despondent, may appear to ride upon the flood-tide of prosperity; while the honest, well-educated, and conscientious physician finds himself plodding along life's dusty highway, unsought and unattended. He is, however, with all his success, no more to be envied than is the railroad-wrecker, or the bank despoiler, with his questionably-acquired millions, by the upright man of business.

As a guide in the acquisition of character must be recognized knowledge. With a proper estimation of its value in your future life-work, your alma mater has demanded of you a preliminary education for entrance into her portals, a rigid examination at the close of each year, and a high standard for your exit from her walls.

As you stand here to-day, conscious of years of faithful toil, of time well employed, we would admonish you that you have but entered upon your education. Our work has been to open the doors to a vast treasure-house, teeming with the choicest accumulation of ages—to furnish you a catalogue by which its contents may be studied and acquired.

While your study, mainly, must necessarily be one-sided and in the direction of your chosen vocation, yet, as all knowledge is but the aggregation of individual experience, the more varied your acquisitions, the wider will be your circle of influence.

A prominent and learned statesman, when remonstrated with for employing an ignorant physician, said that he believed every man to have a knowledge of something, and, as his physician knew absolutely nothing of anything else, he had assumed that he must be learned in medicine.

Unfortunately, at this age of the world, when different surgical procedures are minutely described in the current popular literature, when the latest medical discoveries, in all their significance, are discussed from one side of the world to the other, you will be judged from an entirely different standard.

Books must not be your only teachers. Bacon has said; "Studies teach not their own use; but that is a wisdom without them and above them, won by observation." This is a teacher by no means to be slighted or underestimated.

As the persistent, educated lover of nature passes along the highways, he sees beauties that are ob-

scured to the traveler of different inclination. Cultivate careful habits of observation, and seek to analyze and utilize the data thus acquired.

The observant physician will often determine the character of an ailment before its possessor has been subjected to a single interrogation, but will utilize the subsequent investigation to demonstrate the truth or falsity of his conclusions. The mind of the busy physician becomes a vast gallery, hung with diagrams or charts, with some of which each new case is studied and compared until it is assigned to its proper classification.

The possession of the faculty of tact or discretion is to be appreciated in securing success. The honest physician neither solicits nor rejects confidential communications, and when received considers them inviolable. Unfortunately, your work will not be confined to the sick patient, but you must study as well to please the friends and relatives. To do this, the self-respecting physician does not play the part of a sycophant, but, with all gentlemanly courtesy and firmness, asserts his position as general in command. Unless his right to this prerogative is respected when required, it is better that he should withdraw from further responsibility. He who is weak enough to permit himself to be retained when his authority and directions are not respected, will find himself condemned for adverse results. Men respect the man who respects himself. As a matter of confidence, let me whisper to you that the highest mark of your worldly discretion will be in making the ladies your friends; with them captured, the men will follow.

Patience or perseverance is the ally that furnishes the key of success to those who have not been especially favored with the ability to acquire as rapidly as others. The greatest results are often accomplished by the steadfast exercise of ordinary qualities. The placing before one of a high aim, and never losing sight of it as he toils along, is the goal to success. Buffon has said of genius: "It is patience." The world's history furnishes innumerable examples of men who have been obliged to fight from beginning to end for recognition. Cook, the navigator, and Burns, the poet, were day laborers. Livingstone, the missionary, was a weaver. In our own country, we find Lincoln, Johnson, Grant, Garfield, and Cleveland, men from birth and early surroundings of no promise, attaining to the first position in the gift of their country through patient, persistent toil.

Scanning the ranks of the profession upon which you now enter, you will find the majority of those who have attained the highest success, the greatest renown, are men who have experienced the stimulus of necessity.

As Disraeli, by patient industry, from the laughing stock of the British Parliament, became its leader, so it behooves you to improve the leisure moments of your earlier years in practice, that when opportunity presents itself you are prepared to utilize it. Do not be disturbed that your office is not filled at once with patients; it is better for you that it should not be. You have much to do by way of preparation, in study, not only in books, but that highest study of mankind—man.

Probably one of God's greatest gifts to man is decision of character. While it is true that this may be unequally possessed by different men, every one has the germs of it, which are capable of cultivation. The surgeon or physician brought face to face with an emergency in which the life of an indi-

vidual is at stake, requires coolness of manner and decision of character. You need but to have watched the deportment of men in the different clinics during your term of study to have been impressed with its importance. One surgeon will proceed to the simplest operation in such a way as to impress patient and friends with the fact that it presents the utmost gravity; another meets the most serious and unexpected complications with a coolness of deportment that robs every one of fear.

In our profession, above all others, an abiding, steadfast love of humanity is an essential to true success. We are our brother's keeper, for to us is intrusted that which he values above everything else—his life. The great draft upon our sympathies, the loss of rest, and offensive tasks, would become too irksome to be borne by the mere lover of gain. The reason of failure with many young physicians is the fear of doing something for nothing. The poor washer-woman, who can only reward your service with a "God bless you," may be the means of bringing to you a wealthy patient. The exercise of your regard for your fellow-creatures, in cheerfully caring for such, is casting bread upon the waters, which will return in future days.

It must be said to our credit that our associates are but seldom lacking; indeed, when we consider the years of arduous service in hospital and dispensary, cheerfully rendered; the sacrifice of time and money expended in building up such institutions; we may safely claim they have demonstrated that the medical profession stands second to no other in its love for humanity. Their love is shown by their works.

It is said, "The highest exercise of charity is charity toward the uncharitable." This it must be yours to practice. Sickness and suffering render the patient a supreme egotist. A similar condition is generated sympathetically in his family. Your best-directed efforts, attended by sacrifice of leisure, sleep, and nerve energy, will fail of appreciation when unrewarded by relief. Learn to be patient under misrepresentation and want of appreciation, for "Charity suffereth long and is kind." That man who has the ability to put himself aside and look upon men's actions, even toward himself, impersonally, exerts a power that in the end attracts the admiration of enemies as well as friends, for charity shall cover a multitude of sins.

As we separate to-day, you to enter upon your life-work, we to pursue the daily routine of busy lives, rest assured that our good wishes go with you. The reputation of every school is dependent upon the position secured and maintained by its alumni. Remember, then, that your success or failure affects not yourselves alone, and let the knowledge that your fellow alumni and your college rejoices in your every successful achievement be an incentive to new energy and increased zeal.

In conclusion, in the words of the apostle to the disciples, I would urge you in "Giving all diligence, add to your faith, virtue; and to virtue, knowledge; and to knowledge, temperance; and to temperance, patience; and to patience, godliness; and to godliness, brotherly kindness; and to brotherly kindness, charity; for if these things be in you and abound, they make you that you cannot be barren and unfruitful."

DR. JUMP reports in *The Pacific Medical Journal* four cases of trichinosis, of which one died. The patients were Italians. The attack was attributed to eating raw pork.

Original Article.

A REVIEW OF THE TREATMENT OF VARICOCELE.¹

By G. FRANK LYDSTON, M.D.,
CHICAGO, ILL.

RÉSUMÉ: In discussing the merits of the various operative procedures for varicocele, it is not necessary to take them up in detail. The *raison d'être* of many of the specially devised (?) and named operations is apparent only to the operator. The indication in all operations is to limit or suppress the circulation in the plexus composing the varix. For our purpose the various methods may be devised into:

1. Acupressure.
2. Subcutaneous deligation.
3. Open deligation.
4. Deligation with resection of veins.
5. Deligation with resection of scrotum.
6. Resection of the scrotum.

1. The employment of acupressure at the present day is an evidence of a lack of faith in modern antiseptis, and, to my mind, is much like the Dutchman's method of cutting off his dog's tail—"an inch at a time, so that it wouldn't hurt him so much." Gradual obliteration of the veins by pressure—with or without ulceration—has all the dangers of immediate deligation, as far as sepsis and trauma are concerned; and, moreover, these dangers are continuously incurred from start to finish, whether the process requires a few days or several weeks. I include, under the term acupressure, all the methods involving gradual severing or obliteration of the veins. The dangers of acupressure are, in a measure, similar to those of subcutaneous deligation, shortly to be described.

2. Subcutaneous deligation is not an essentially dangerous operation in skillful hands. Unfortunately, however, the rank and file of operators are not as skilful as some of those who claim such extraordinary success with this method. Simple as the various methods of subcutaneous ligation may appear, serious accidents have occurred. The operation is done in the dark, so to speak, and more tissue is included than is essential to the cure of the varix. A certain amount of cellular tissue is certain to be included with the mass of veins, and the strangulation of this tissue is not conducive to safety. The veins also may not be completely strangulated. McKay relates a case in point: "In the early summer of 1888 I was called in by Dr. Habib Tubagy, of Beyrout, Syria, to operate on Mr. Nasif, an unmarried carpenter of that city. Two days previous to this he had been operated upon by Vidal's method, but as there was considerable swelling of the scrotum, and he was suffering much pain, he desired the radical operation by the open method. After thoroughly cleansing the parts an incision was made similar to, but somewhat shorter than, that in the former case. The wires were found enclosing the blood-vessels and much cellular tissue, and not tight enough to entirely arrest the flow of blood.² A portion of the scrotal tissue may be included in the loop of the ligature, unless great care be taken.

The veins being squeezed up *en masse*, there is less security against secondary hemorrhage than when they are ligated separately. Scrotal hæmatocele, phlebitis, septic infection, thrombosis, and embolism are possibilities. Regarding the latter, however, it is my opinion that there is more danger of thrombosis and embolism in gradual occlusion of the veins than in their cleanly individual deligation. Subcutaneous deligation, while not so dangerous in this respect as acupressure and its *congeners*, is more so than a neat, open operation. Strict asepsis neutralizes all possible claims for the timid and hap-hazard deligation in the dark. Surgeons of some experience have included the vas deferens in the loop of ligature or wire with resultant atrophy of the testis. A case of this kind has occurred in Chicago. Atrophy of the testis, however, does not necessarily imply inclusion of the vas deferens, as ligation of the spermatic veins alone has produced it. I believe, though, that this danger of atrophy has been overrated. Severe varicocele is attended by atrophy of the testis, sometimes to a marked degree; as the varicocele subsides, this degenerate condition becomes apparent, and the superficial observer might conclude that atrophy had occurred as a result of the operation. Tetanus is one of the possible results of inclusion of the vas deferens.

Richet, in practising the method of *enroulement*, has observed that a vein with hardened and thickened walls is occasionally found in the midst of the mass composing the varicocele, which may be mistaken for the vas deferens. He relates a case in which both himself and Denonvilliers were in doubt in the performance of Vidal's operation. Richelot cites a similar case.¹

Many surgeons believe that the chief danger of ligation subcutaneously is inclusion of the spermatic artery, which is deeply situated amid the mass of veins composing the varix. Ligation of this artery, it is claimed, leads to certain atrophy of the testis. This is the opinion of Gosselin, and, following him, Levis, Gouley, Jenks, Malgaigne, and Henry. Nicaise is also very chary of tying the artery. Malgaigne holds that it is impossible to avoid the artery, and that, therefore, subcutaneous deligation is equivalent to castration. Guyon and Richelot claim that the arteries of the vas deferens and cord proper are sufficient to preserve the nutrition of the testicle.

Sir James Paget reported a case of pyæmia following subcutaneous deligation. Curling spoke of several cases of *enroulement* practised by Roux, in which death resulted. Thievenow had a case of death from septicæmia. Howe reported a fatal case of peritonitis after ligation.

That severe pain, and even tetanus, should be liable to occur in subcutaneous deligation is not surprising, if we take into consideration the numerous and sensitive nerve filaments which supply the involved parts. The inclusion of these nervous structures in the ligature is, to a great extent, unavoidable. The danger is reduced to a minimum, however, by care in separating the structures of the varicocele, and including as little tissue as possible in the ligature.

Despite the foregoing criticisms, I do not condemn subcutaneous deligation *in toto*, and have myself performed it a number of times. In proper hands, and under some circumstances, it is well enough. I believe, nevertheless, that there are better and safer methods. There is no need of complicated needles and other devices in this operation. Juniperized silk

¹ Read before the Southern Surgical and Gynecological Association, and printed from advanced sheets of their Transactions.

² Thomas W. Kay: *Cleveland Medical Gazette*, December, 1889.

¹ Quoted by Wickham.

is probably the best substance for ligature. After proper antiseptic precautions the scrotum is gathered up in the hand and transfixed from before backward with a small tenotome; the knife is then withdrawn and the scrotum allowed to drop back in place. A fine stiff probe (eyed) threaded with juniperized silk is now passed through the punctures between the veins and the vas deferens, and passed back outside the veins still carrying the ligature, to emerge at the point of original entry in front. The probe is removed, and the ligature tied and dropped. The usual precaution of rest is now taken. Any of the various forms of needles may be used, if desired. The results of subcutaneous deligation when properly performed are certainly good, a large proportion of cures resulting. This in a measure compensates for the undesirable features of the method.

FIG. 1. FIG. 2. FIG. 3. FIG. 4.

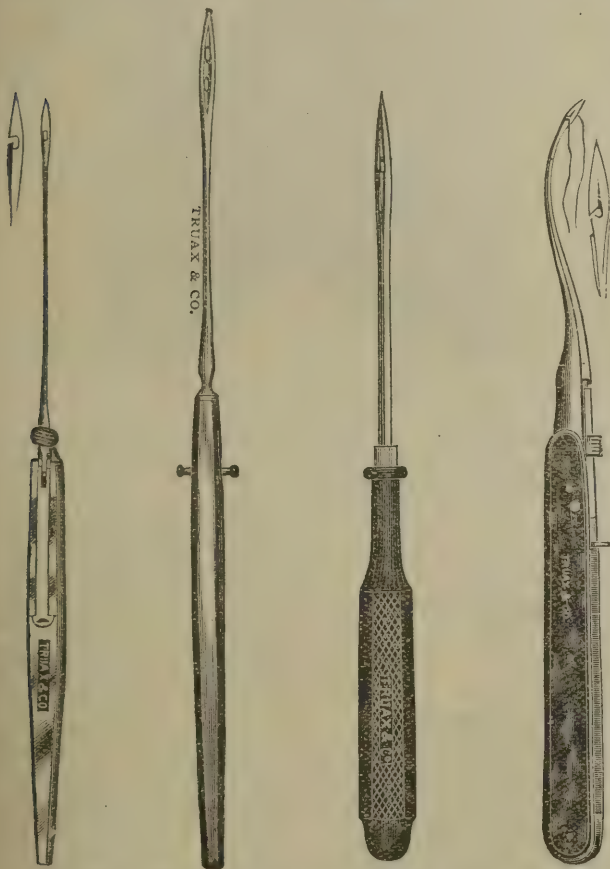


Fig. 1.—Keyes's improved needle for varicocele.
Fig. 2.—Keyes's varicocele needle, plain.
Fig. 3.—Whitehead's varicocele needle.
Fig. 4.—Reverdin's needle.

3 and 4. There is little choice between open deligation without disturbance of the veins and deligation with resection of the veins, excepting possibly (this being very remote) the additional danger of sepsis in the latter. Division of the veins with the cautery wire is as yet untried, but in spite of the favorable report of its originator, I believe it to be the most dangerous operation yet devised.¹ The dangers of the open method are in a less degree those of subcutaneous deligation, with the exception of that of inclusion of the vas deferens; this cannot occur. If the open method be selected, the point of election should be as high up as possible, and as small an incision made as is practicable to work through. The

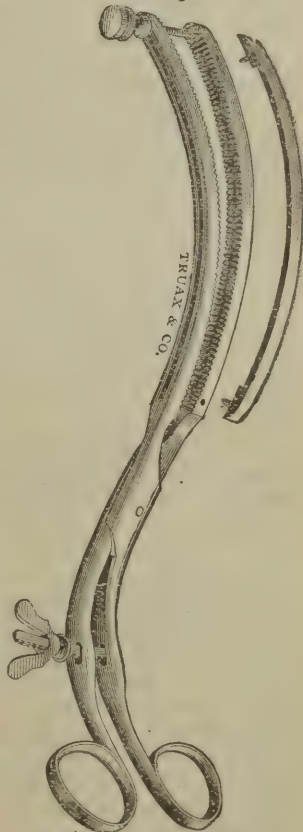
veins are thus ligated in their straight portion with very little mauling about of the cellular tissue. The higher up the deligation the less the danger of sepsis, cellulitis, and atrophy of the testis, the latter advantage being possibly due to the avoidance of trauma of the smaller veins upon which we must rely for return circulation after obliteration of the vessels composing the varix.

In a general way, it may be said that deligation at a single point in each vein is safer than at several points in the same vessel; it is also quite as effectual. The results of the open method performed in this manner are excellent, and the danger under antiseptics is very remote.

5. Deligation with resection of the scrotum I consider to be the ideal operation in by far the majority of cases demanding surgical interference. Much depends on the method of performance; the important details, as far as the danger to life is concerned, affecting chiefly the deligation. Under proper antiseptic precautions, I do not believe that the scrotal amputation complicates, or at least enhances the dangers of the operation. Deligation with resection is indicated where the varix is large, and the scrotum very lax and pendulous. The removal of the latter gives the best prophylaxis against recurrence of the varix. The results are likely to be better than those attained by any of the other methods.

6. Resection of the scrotum is the safest operation for varicocele, and, according to Henry,¹ is a radical cure in the true sense of the term. He reported fifty-nine operations some years ago, which, as far as he could learn, were radically successful. This same operator has since reported a number of cases at various times, for which he claims an equal degree of success. In my early experience with Henry's operation, I was inclined to accept the statements of the ardent advocate of the method without much question. A wider experience and observation has, however, convinced me that too much has been claimed for the operation. To be sure, as Henry naïvely says, it makes little difference if the operation is again necessary, after a lapse of years, as the method is perfectly safe, but this is begging the question in regard to an alleged "radical cure." In very large varicoceles the changes in the texture of the venous walls are such that pressure and support alone are insufficient to secure restoration of their natural consistency and calibre, even though the pressure be sufficiently firm and continuous. There is little

FIG. 5.



Henry's improved scrotal clamp.

¹ Pearce Gould: *Lancet*, 1880.

¹ M. K. Henry: *Treatment of Varicocele*. J. H. Vail & Co., 1871.

elasticity in the remaining portion of the scrotum, and the tone of the part is apt to remain as impaired as before the operation, the same constitutional conditions prevailing. It is my opinion that stretching and relaxation of the new "natural suspensory" or scrotum will occur in the majority of severe cases sooner or later. The varicocele may not be as severe as before the operation and the more urgent symptoms may be relieved, but there is nothing edifying in the spectacle of a good-sized varix a few years, or perhaps a few months, after a so-called radical cure. I desire to do the method full justice, however, and am free to say that the subjective symptoms do not always recur *pari passu* with a return of the varix; but I am discussing a "radical cure," and hair-splitting is unnecessary. The patient is apt to forget the original subjective symptoms, and gauge the value received by the ocular and objective evidence at his command. My complete monograph, when published, will contain illustrations showing the condition of several cases several years after the operation.

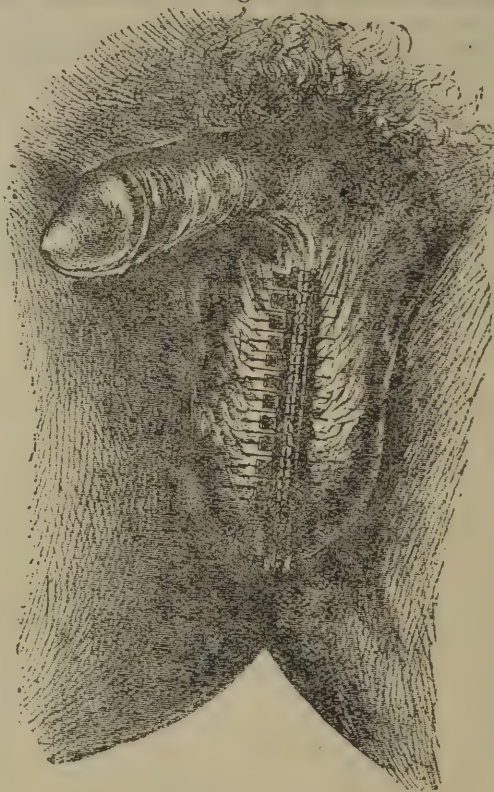
Andrew's retention clamp for varicocele.

In moderate varicoceles and in quite young subjects the scrotal tissues are apt to retain a certain degree of consistency and elasticity, and the veins have not usually entirely lost their normal tone. Under these circumstances scrotal resection is the ideal operation. It is far better, in my opinion, for a patient to submit to this operation than to be annoyed by suspensory bandages for the rest of his days. It is safe when properly performed, and gives an ideal result.

One of the most systematic operations for varicocele is that advocated by M. Edmond Wickham.¹ This surgeon uses the Horteloup clamp and performs the operation with the strictest antiseptic precautions. The novelty of this method consists in his mode of fastening the sutures. The sutures are passed a short distance apart and are double; at one extremity they are fastened to a thin strip of lead moulded to accurately fit the curve of the scrotum after its curtailment. The sutures are passed through between

the blades of the clamp before its removal. Between each suture is passed a harelip-pin. Small sections of lead-tubing are passed over the ends of the double

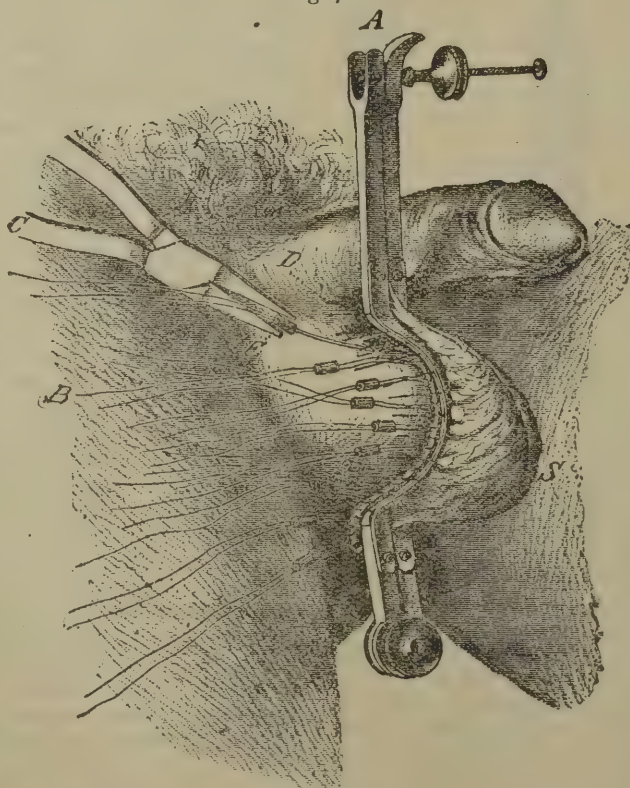
Fig. 8.



After Wickham.

sutures, and at the completion of the operation are clamped down firmly in a manner similar to that employed with split shot. (Fig. 8.)

Fig. 7.



After Wickham.

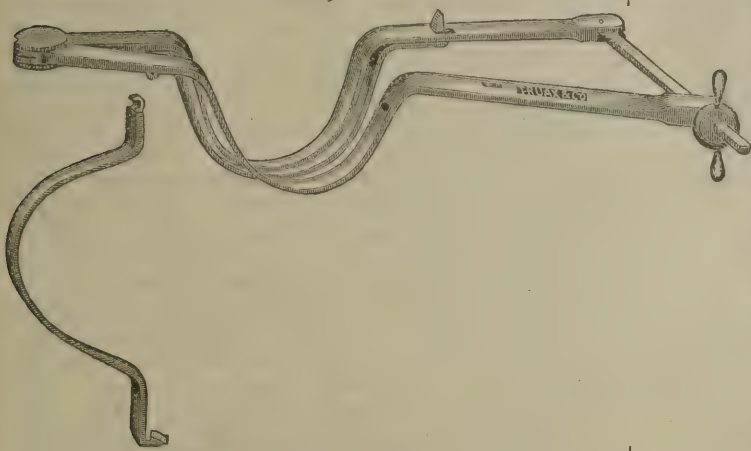
I append illustrations of Wickham's method, not because I recognize its superiority, but because the cuts represent quite accurately the proper method of application of all forms of clamps and the passage of the sutures. Regarding the Horteloup clamp, I am inclined to believe that there is likelihood of too much scrotum being left where this clamp is used for the purpose of outlining the proper amount of tissue for removal. (Fig. 9.)

In describing what I believe to be the ideal method for large varicoceles it is not my intention to advocate it as a routine practice. The surgeon must necessarily at all times use his best judgment and select the operation apparently best suited to the exigences of the case in hand. I will simply describe the method which I believe to be the safest and near-

¹ Thèse de Paris, 1885.

est approach to a radical cure in the vast majority of cases of pronounced varicocele. I shall not follow the usual custom of claiming the method by virtue of some little modifications of technique. As I have already hinted, the *raison d'être* of so called special methods usually exists in the mind of the operator. I do not know whether this particular combination of the old and new is practised by others, nor do I consider it material to the subject in hand. If it is so practised the operator is privileged to label it to suit himself, providing he will permit me to use the label.

FIG. 9.



Horteloup's scrotal clamp.

The bowels having been emptied by a saline or castor oil, the latter being perhaps preferable, the scrotum, pubes and thighs are thoroughly scrubbed with green soap and bichloride 1 to 2,000, and then bathed with a bichloride solution, 1 to 1,000. This completed, the patient is anæsthetized, during which process the scrotum is wrapped in a towel wet with the bichloride solution. It is hardly necessary to say that the operator is now supposed to wash his hands and remove all superfluous subungual organic matter. Everything being thus prepared, and all instruments having been aseptized by boiling water, an incision, an inch or a little more in length, is made, beginning just below the external abdominal ring and parallel with the spermatic cord. This is carried down until the cord and its accompanying veins are exposed. The number of veins varies in my experience; they are here quite straight and when emptied of blood quite small. The cord and veins are hooked with an aneurism-needle out of the wound, which is meanwhile occasionally irrigated with bichloride solution; the veins are now separated, and several of the larger ones ligated with a single ligature of medium-sized juniperized silk; the ligatures are cut short, and the veins and cord dropped back in place. If there is any difficulty in reposition of the cord it is readily overcome by traction on the testicle. The wound is now irrigated and thoroughly dried, towels instead of sponges being used for this purpose. Sponges are far inferior to soft towels for checking oozing, which are for many reasons to be preferred. Several fine stitches of juniperized silk are now inserted, the wound closed and dusted with iodoform. During the remainder of the operation the wound should be compressed with antiseptic gauze by an attendant. The next step is the application of the clamp. I have used both Henry's and a modification of King's clamp,¹ but any other good clamp will do. (Fig. 10.)

¹King's clamp is lighter and less bunglesome than Henry's.

Care should be taken to divide each side of the scrotum equally, and to include sufficient tissue in the clamp. As already observed, it is well-nigh impossible to remove too much. I have operated in cases where I have removed the clamp after excision of the scrotum for the purpose of ligating a vessel, and have found so little tissue left that I had extreme difficulty in covering in the testes, yet the new scrotum has not only proved sufficient, but I have wondered whether it would not have been practicable to remove more tissue. The point of election having been determined upon, the redundant tissue is quickly cut away along the face of the clamp. Juniperized silk sutures and harelip-pins are to be used, and may be inserted either before or after the excision, but always before removing the clamp. There should be as little delay as possible, as the prolonged pressure of the clamp produce more or less bruising of the loose scrotal tissues, which is not conducive to prompt union. Three or four pins are usually enough; these should be inserted at divided intervals, and the silk sutures interposed in sufficient number to prevent gaping and maintain accurate apposition. Henry covers the heads of the pins with sealing wax, and embeds their points in small corks. A plan which is perhaps better, and one which I occasionally practise, is to pass reinforcing sutures of silver wire instead of the pins. A single strand of wire is used, and its ends knotted upon small rubber buttons or fixed in split shot. The tension is so extreme that something more than ordinary sutures is required. The secondary blade of the clamp having been removed, the sutures are lightly tied and the main clamp removed. If the sutures be permanently tied before removal of the clamp, the surgeon may have to reopen the wound to tie some spouting vessel. Vessels should be twisted where possible, or transversed by a suture. An assistant must now press back the testes, else they will pop out in a truly demoralizing fashion. I well remember my first experience in this respect. I wondered where on earth I was going to get skin enough to cover those obstreperous appendages.

FIG. 10.



King's scrotal clamp.

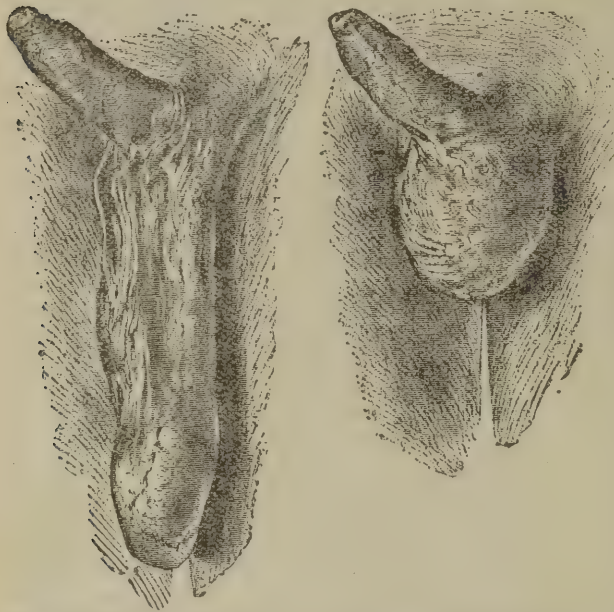
All hemorrhage having been checked the wound is permanently closed. Too much care cannot be taken in checking hemorrhage, as there is an especial tendency to venous oozing; the formation of a clot beneath the wound will not only prove a source of septic danger, but will prevent speedy union. There is also the danger of serious hemorrhage of a passive character. To one unfamiliar with operations about these parts the tendency to prolonged oozing is peculiar. I have noted it for several days after a most careful operation for varicocele. The danger of hemorrhage is in a great measure dependent upon the constitutional condition of the patient, as shown in one of my cases.

The occurrence of concealed hemorrhage and formation of clots can be readily avoided by the insertion of a small drainage tube along the line of suture at the lower angle of the wound. I prefer for this

purpose decalcified bone, but rubber will, of course, answer the purpose. Henry uses adhesive plaster as an additional support to the wound, but I have found graduated compresses to be all that is required.

FIG. 11.

FIG. 12.



Case of extreme elongation of scrotum before and after operation. (After HORTELOUP.)

Having closed the wound and made provision for drainage the parts are irrigated with the bichloride solution, dried, the edges sprinkled with iodoform and a piece of oiled silk or protective laid along the edges to prevent adhesion of the subsequent dressings. A quantity of borated cotton and antiseptic gauze, in which a hole has been cut for the penis, is now applied, and the whole secured by a three tailed bandage, secured at the waist. A light diet should be advised and no attempt made to move the bowels for four or five days. When a movement does occur the parts should be carefully supported and a bedpan used. The sutures should not be removed for six or seven days or gaping will quite likely occur. So extreme is the tension when the operation is properly performed, that gaping is quite frequent. The drainage-tube should be removed in three or four days. The silver pins or wire sutures, as the case may be, can be allowed to remain for several days longer, if necessary. An excellent plan where gaping occurs is the application of stout mole-skin plaster on either side of the wound; through the edges of the plaster holes are punched and the two strips laced together with a stout silk or hempen thread, shoe-string fashion. The strips of plaster should extend well out to the thighs. Although a speedy union is desirable as lessening the liability to inflammatory complications and enabling the patient to get about soon, gaping of the wound has some compensatory advantages. The cases which heal by granulation yield a firmer support to the varix from cicatricial contraction and inflammatory thickening. This was well illustrated by one of my cases in which erysipelas occurred.

The patient may be allowed to get up in two weeks if no complications arise.

My operations for varicocele now comprise forty cases of all methods, ten of which have been subcutaneous deligation of the veins, sixteen of simple resection of the scrotum, four of resection of the scrotum

with ligation of the veins at several points, one of open deligation with resection of the veins, one of open deligation without resection of the veins, and eight of ligation of the veins high up with resection of the scrotum. A recital of these cases in detail would be monotonous as well as wasteful of valuable space; hence I will give only the points of interest developed by their study. I have had no deaths and but few cases in which there was serious reason for alarm. In some few instances, however, there were certain features which caused me considerable uneasiness for a time.

The youngest patient operated on was eighteen and the oldest forty years of age. Most of the patients were between twenty and thirty. The duration of the affection varied according to the patient's statements from one to twenty years. The question of duration, however, is not of importance, nor can it be arbitrarily settled in any one case. The duration of varicocele is necessarily a relative matter, and implies the period since the condition was first brought to the patient's attention. Obviously, the sexual hypochondriac who proverbially seeks for what he does not wish to find, is likely to discover the tumor earlier than one in whom the sexual functions are not a matter of especial concern. Patients with neuralgic manifestations referable to the cord, testes or penis are apt to discover their varix at an early period.

The causes of varicocele as suggested by my cases are also difficult to outline arbitrarily. Masturbation and sexual excesses are the causes which are usually assigned for varicocele. Often, however, sexual excesses do not appear to be sufficient *per se* to account for varicocele, but no other cause is discoverable. It is certain that only a small percentage of masturbators have varicocele. As, however, all boys masturbate, it is safe to say that about all subjects of varicocele have done so, hence the *post hoc ergo propter hoc* argument is quite natural. I believe that I am safe in saying that sexual abuse alone never causes varicocele, and that it is an effective cause in direct proportion to its association with some constitutional fault involving vasomotor perturbation and laxity of tissues, with especial reference to the venous walls.

As illustrative of the important relation of general vascular atonicity to varicocele, one of my cases is certainly striking. This case was under the charge of Dr. S. V. Clevenger, one of our leading neurologists, who was treating him for epilepsy. The doctor observed scrotal hæmorrhoids and referred the patient to me as a curiosity. On examination I found a large varicocele which the patient claimed was causing him great annoyance by its weight, and the consequent backache, dragging upon the cord. On inquiry I elicited the fact that he was exceedingly hypochondriacal. A peculiar feature of the case was the fact that the seminal emissions, like the sudariparous secretion of the scrotum, were heavily tinged with blood. Urethrametry revealed several strictures in the penile urethra. As the epileptic attacks were infrequent and had developed since the acquirement of the strictures—and the patient claimed, since the development of the varicocele—it was thought advisable to operate. As I considered the hemorrhagic secretions to be a fair warning of the danger of hemorrhage, I ligated the varix subcutaneously, and at the same time performed a dilating urethrotomy. As I anticipated, a terrific hemorrhage from the urethra resulted. The bleeding continued for three days, and necessitated the constant presence of an attendant who applied pressure by means of an ice-bag. There was considerable induration of the veins and a sharp

orchitis following the ligature. The result, however, has been excellent so far. The epileptic attack which was expected at the time of the operation has been postponed for nearly four months. I do not say that this fact is proof of the casual relation of the stricture and the varicocele to the epilepsy. Time may show this, however. Like many operations upon the skull for epilepsy, the result in this case may be due to a temporary revulsive effect upon the nervous mechanism which has merely postponed the usual explosion. I will state, however, that the patient's general health is much better, and that he has markedly increased in weight; he claims a gain of twenty-five pounds.

A recent letter from this patient, nearly nine months since the operation, states that his improvement has been permanent, but that he had one very light attack of epilepsy.

Several of my cases have apparently followed an epididymitis or traumatism. In how far those causes were responsible for the varix in these cases I am unable to say. In the case of a fireman, among my patients, I am confident that an injury caused a very large varicocele. Very often the only relation between epididymitis or injury and varicocele is the fact that the latter has been first discovered after these accidents. Personally, I think that either of these causes may be operative. I have had one case of varicocele undoubtedly due to athletic strain. All authors, I believe, admit the possibility of a kick producing varicocele. In several instances I have had patients with small varicoceles who happened to be under observation, whose varices increased after an attack of epididymitis. Anything which will impair the tone of the involved part, or induce circulatory obstruction, should be operative in producing or at least aggravating varicocele.

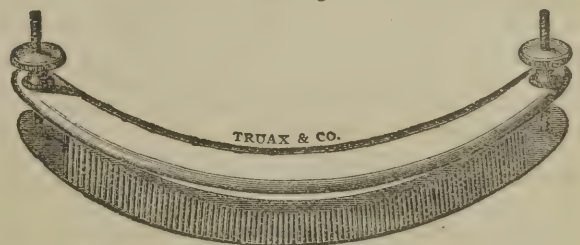
I have operated on two jockeys, each of whom attributed his varicocele to excessive horse-back riding; in one case the patient recalled an injury in springing into the saddle. There is no question in my mind as to the casual influence of excessive horse-back riding in producing varicocele. All old cavalymen will support this opinion. The records of the pension office afford abundant proof. Dr. James A. Lydston, who has been connected with the pension bureau for some years, informs me that varicocele is one of the most frequent disabilities presented to the attention of the department, and that it is especially prevalent among those who served in the cavalry. How important the appearance of two jockeys for treatment is in this connection I cannot say; it may have been a coincidence, and I am unable to state that the prevalence of varicocele among jockeys is a matter of comment. Other things being equal, they would be less likely than other riders to injure themselves, as they ride on plain saddles, and they cannot, therefore, experience the disagreeable effects of a blow with a pommel. Jockeys, as a class, are young, healthy, light-weight subjects, who are well kept and not subject to vascular debility.

The symptoms for which the patients upon whom I have operated have sought relief have varied. In several instances the principal annoyance complained of was the deformity. One of my patients, for example, was annoyed by the frequent comments which were made upon his appearance, his varicocele being so bulky as to be quite prominent even when his trousers were amply large. There was no other symptom in his case which was of any particular moment. The case was much more remarkable as

regards volume than that of Horteloup, which I have presented.

In several other cases there was noticeable deformity, but associated with it were sexual hypochondriasis and various reflex disturbances. In some instances mechanical discomfort has been chiefly complained of. In several cases intertrigo, and in one instance severe chronic eczema constituted the chief source of annoyance. Pain in the back, shooting pains along the cord and penis, and neuralgia of the testes have been frequent. In some cases irritability of the bladder has been complained of. In nearly all instances sexual hypochondriasis, with or without spermatorrhœa, has been pronounced. I do not wish to be understood as asserting that all of the symptoms for which the patients sought relief were necessarily dependent upon the varicocele. The nocturnal pollutions, spermatorrhœa and prostatorrhœa might have been due in many of my cases not to the varix *per se*, but to the same underlying cause as the varix. In several instances the principal symptoms were not removed by the operation.

FIG 13.



Lewis' scrotal clamp.

In but one case have I had sufficient hemorrhage to give rise to any particular annoyance. In this case there was a tendency to hemophilia. This, with my failure to use a drainage-tube, resulted in a concealed hemorrhage, the formation of a clot, and after removal of the latter, free passive oozing for some days. In this case there was the most extensive ecchymosis that I have ever seen, the tissues from the umbilicus down to the middle of the thighs being as black as extravasated blood could make them. The result, although alarming in appearance, was not a matter of concern, but the patient became very much frightened at what was apparently, as he expressed it, a "general mortification." A tendency to ecchymosis exists in all cases of operation for varicocele, and this should be remembered, else both surgeon and patient are apt to be demoralized by the consequent appearance of the parts. In several other instances there has been a tendency to oozing for some days, thus precluding the possibility of primary union.

The use of the drainage-tube is, in my estimation, one of the most valuable points in all operations involving resection of the scrotum. Concealed hemorrhage, tension, and sepsis are not liable to occur when the tube is used; there is unquestionably danger of these accidents without it. As long as marked oozing persists the tube should be allowed to remain. Should severe hemorrhage occur after the operation has been completed, the tube facilitates hot water irrigation or the application of styptics, the former being the best hæmostatic.

The healing of the wound in a fair proportion of my cases of resection of the scrotum has been by first intention; but I have found that there is in many cases a tendency to gaping, even though the sutures be allowed to remain for a week or more. Indeed, I am inclined to believe that when there is no tendency

to gaping, hardly enough scrotum has been removed. The gaping is always due to the extreme tension upon the parts incident to a thorough operation. It may be prevented in many cases by allowing the sutures to remain in for some little time. If juniperized silk and silver wire be used, as I have suggested, the stitches can be allowed to remain in from five to eight days with impunity.

In several instances I have had slight sloughing of the scrotum, evidently from extreme tension. In these cases, however, the result has been even better than those in which primary union occurred. No matter how much tissue may slough, the parts become covered in by an excellent scrotum with almost marvelous rapidity. Although the fit is decidedly snug at first, the testes soon accommodate themselves to their new investment. I have never seen a more delighted patient than one of mine, in whom cellulitis occurred as a consequence of infection after operation.

I recall a case of cellulitis of the scrotum—hot, however, following operation—that occurred some years ago in the New York Charity Hospital, in which the testes were bared completely, yet by judicious strapping and occasional stimulation of the granulations a good scrotum was finally secured. I saw several other cases of scrotal cellulitis in the New York State Emigration Hospital during my term of service in that institution. Contrary to the rule in such cases, none of these died. In all there was extensive sloughing of the scrotum, but repair when once begun was very rapid. Such cases teach us that in resection of the scrotum there should be little fear of excising too much tissue. The more excised the better the result; and while it is always desirable to obtain primary union where possible, I feel justified in saying that the more gaping the better the result. Cellulitis, *i. e.*, erysipelas, is not a source of danger in resection of the scrotum unless direct infection occurs. This was the explanation in one of my hospital cases already mentioned. The failure of the wound to unite promptly is, undoubtedly, in some cases of scrotal resection, due in a measure to the prolonged pressure of the clamp. Sloughing may be partially explained in this manner. As I have already remarked, my faith in resection of the scrotum as a radical cure for varicocele has been somewhat shaken by several of my cases. In one instance I have had an opportunity to watch the gentleman for nine years since the operation, and although I removed all the tissue necessary to an ideal operation in this case, the varix, which was a very large one, has recurred, and is now nearly as large as ever. The symptoms, however, for which he sought relief have not returned. In two other cases there has been a moderate recurrence. The objection may be urged that I have not taken off enough scrotum. My conscience is clear upon this point, however, as I have invariably taken off all I could in reason and still retain a scant covering for the testes. I have also at present under my care a gentleman, who was reported by a well-known Western surgeon as a radical cure of varicocele by resection some years ago, in whom the recurrence is pronounced. A photograph of this case will be published with my complete paper.

My operations of subcutaneous deligation have been successful, but on the average have given me more uneasiness and trouble than those in which I performed the open operation. Induration, pain, and orchitis are some of the disagreeable features which I have experienced from this method of operation. I have found that the operation of tying the

veins low down is much more objectionable from this standpoint than that involving ligation higher up, as in the combined operation which I have recommended. It is obviously safer to ligate the veins at their comparatively straight portion, where the changes in the vascular walls are at a minimum, and there is the least necessity for mauling about the investments of the testes and tearing up the planes of areolar tissue. I have already given my reasons for advocating the combined operation. In one of my cases of combined operation I ligated the vessels at several points rather low down. This patient did fairly for two weeks, when he arose against orders, or rather, over-exerted himself when allowed to sit up. As a result, phlebitis, cellulitis, and consequent slight suppuration developed. During convalescence this patient developed severe *la grippe* with marked pulmonary symptoms, hæmoptysis being profuse, giving me great apprehension of pyæmia with embolic pneumonia, etc. Although never very strong-lunged, this patient perfectly recovered.

In four or five cases stricture existed, and urethrotomy was performed simultaneously with the operation for varix. I can see no objection to this procedure, and I have had but one case in which the operation upon the urethra afforded any complication. This instance, already alluded to, was one in which severe urethral hemorrhage resulted.

Two cases have come under my observation which suggested the possible development of hydrocele as a result of operation for varicocele. In one of these cases, operated on by me several years ago by subcutaneous deligation, I again operated on a short time since for an encysted hydrocele upon the same side. In another instance, I operated for hydrocele in a case in which subcutaneous deligation had been previously performed for varicocele of the same side by another practitioner. The patient was complaining of the same symptoms, according to his statement, that had characterized the original varicocele. My operation for hydrocele, although perfectly successful *per se*, has not relieved the symptoms from which he was suffering. He is now giving me a great deal of annoyance by his complaints of severe neuralgia of the testicle. The irritation of sunken sutures, which had accidentally traversed the tunica vaginalis, or obstructed venous circulation *plus* irritation, might account for these cases. In ligating low down the tunica vaginalis is apt to be quite roughly handled, if not actually traversed by the ligature. Acute hydrocele is a very frequent element in the swelling resulting from ligation of the varix. As already remarked, the testis itself may be involved. Injury of the fascial envelopments of the cord high up is not important, and is a necessary factor in the operation which I have suggested.

I have never performed an operation for double varicocele, involving double deligation. Indeed, I have met with no case which to my mind required such operation. Even though a case of double varicocele should apparently require a double operation, I should hesitate to incur the risk of atrophy of both testes. In ordinary single operations the risk of atrophy is doubtless overrated. This is probably due to (1) the relative appearance of shrinkage incidental to the subtraction of the swelling of the varix *per se*. (2) Continuation of atrophy, which was steadily progressing prior to operation. (3) Atrophy due to embolism, syphilis, epididymitis, etc. Theoretical considerations, however, do not always mollify the patient where atrophy of the testes occurs. It will be remembered that Delpach was assassinated by a man

upon whom he had performed a double deligation for varicocele some years before. On autopsy the murderer's testes were found to be soft and shrunken, presumably from the operation.

I have had no case in which atrophy of the testes has followed an operation, and have had several of scrotal resection, in which the testes became firmer and larger after the operation. Among my cases was one of scrotal hæmatocele, resulting from the injury of large varicocele. In this case suppuration occurred, and I was obliged to lay the part open, and as soon as it was healthily granulating I removed the pendulous scrotum with an excellent result. While I have not been able to follow all my cases for a great length of time, the immediate results have been eminently satisfactory, and in those cases which I have been able to follow for a period of several years, I have had no occasion to regret the operation. In the majority of instances the relief obtained has been so marked that the patients were greatly delighted. That this was always a physical result of the operation I do not claim, nor do I think, under the circumstances, that it is a question of great importance.

In general I have found that the combined operation of high ligation of the veins with resection has been much better from the standpoint of economy of time than the subcutaneous or ordinary open operations of ligation. Painful induration and swelling of the testes, with consequent disability and impeded locomotion, are very frequent in my experience when these operations of deligation have been performed.

In nearly all of my cases there has been a marked improvement in the patient's mental condition. Hypochondriasis has been relieved and sexual vigor improved or restored. Pain has been relieved in most instances. A notable exception is the case already mentioned in which hydrocele followed an operation for varicocele and severe pain persisted after cure of the hydrocele.

DISCUSSION.

DR. WILLIS F. WESTMORELAND, of Atlanta, Ga.: I was very much pleased with Dr. Lydston's paper. He brought out some interesting points. I have had but very little experience with varicocele. The few cases I have had were operated on after the plan of the essayist. Unfortunately, most of the varicose veins were in the lower portion of the scrotum, and, instead of ligating above by a simple operation, I enclosed them in the clamp and cut them off. The first case I had I opened the scrotum and, as I thought, ligated all vessels simply by laying segments of the scrotum back, above and below; but I found out I did not, and that night I was called about two o'clock to see the patient. He was having a profuse hemorrhage. I took out all the stitches and ligated the two vessels I found bleeding. Even with that unfavorable result I have tried it on two other cases.

I agree with the doctor fully that in many cases, if you simply ligate without curtailing the scrotum, you are apt to have a return of the varicocele; in addition to that, the nervous symptoms, especially with reference to the sexual organs—impotence and other varieties of nervous troubles. I curtail the scrotum in every case now of varicocele. I cut off every bit of it I can with safety of bringing the edges together afterward. I always leave just enough tissue to be brought together. I operated on a case in this way, and the patient got well in about a week. He took the dressing off on the seventh or eighth day.

DR. W. O. ROBERTS, of Louisville, Ky.: My experience in the treatment of varicocele has been con-

fined to three cases. In the severe cases I always practice the open method, make a long incision, and remove the veins. I use the subcutaneous ligature, and in doing this I use a large needle with small thread passed, as in olden times, through a button, except that I do not use a button. I have had no experience in excision of the scrotum; in fact, I cannot say that I have seen any cases where I thought I would be justified in removing the scrotum. In the majority of cases of varicocele I do not think any operative interference is necessary; and when an operation is done, in a large proportion of cases we have a recurrence.

DR. HENRY F. CAMPBELL, of Augusta, Ga.: I have been consulted on many occasions with reference to the subject of varicocele, and I have formed the opinion that in many cases, especially in young subjects, the operation should be delayed until full maturity of the sexual organs has been attained. I recall a striking instance: A distinguished and highly intelligent gentleman of this State brought his oldest son to me for examination, and he said, "Doctor, I think my boy has a hernia." On examination I found that it was varicocele. The boy was only fourteen years of age. His organs were in the height of their development, and I told the father that no operation was required; that he should wear a suspensory bandage, and the spine should be rubbed with a cold sponge night and morning, and the parts bathed with cold water. He followed my advice. I had formed no particular theory on the subject, except that I never forgot the neurodynamic influence of the spinal cord in all vascular processes, whether they be nutritive or trophic, congestive or inflammatory, no less than in its ordinary control of sensation and motion. Shortly afterward he brought in his second son and said: "I am troubled in my family a good deal. Is not this a case of hernia?" Not long after a third son was brought to me. The boys were between thirteen and twenty years of age, and I came to the conclusion that the veins of the part had become congested and turgid from temporary over-nutrition consequent upon development of the sexual organs. I have seen many of these cases occurring in adolescents who came to me with regard to curing them. At a particular time of male adolescence the genital organs begin to develop rapidly; there is increased nutrition of the parts, and the veins become engorged or enlarged, the scrotum relaxes, and the patients feel as if they had something unusual there, and instead of calling it varicocele, they hit upon hernia almost invariably as the most familiar and dreaded thing.

While on this subject of turgescence in development, I may say that we have to recognize, in the boy as well as in the girl, the period of puberty as characterized by what may be called a *new and sudden endowment of blood*. This is more particularly in the organs to be developed, but also in the general system, for the entire body changes and grows too. This local and general trophic plethora is not always so manifest in the boy—he has only to develop his sexual organs that they may become competent to procreate—while the girl's turgescence has to be more elaborate; she has not only to develop the organs, but ever after that time of maturity she must be made competent to supply, for several days in each month, from three to six ounces of blood, which, in case of conception, is to be appropriated to the gravid enlargement of the uterus and to the growth of a fœtus during nine months, and afterward, probably, to lactation, during nine or ten months longer; but

even the boy must have a large amount of blood to develop his testicles, and it is this turgescence which constitutes the kind of varicocele he is affected with at this time. But there is not the least doubt that many of these developmental enlargements of the veins become and remain permanent morbid conditions, embarrassing the nutrition, and secretion, and growth of the testicle in the matured life of the man, finally involving and then destroying the structure of the organs, giving rise to impotency, melancholia, and a long train of evils which imperatively demand operative measures for their prevention or relief.

I have been greatly interested by the description of these more recent methods as given in Dr. Lydston's paper just read, and my remarks have referred only to the class of cases which I have mentioned—the recollection of some of my experience. In regard to these cases I will say that I have never operated on any young subject for the radical cure of varicocele. After awhile the organs begin to assume their natural condition, and we hear no more about varicocele. These patients get married and live to have a good many children, some of them, and we hear no further complaint of their testicles.

DR. GEORGE A. BAXTER, of Chattanooga, Tenn. : I did not intend to speak on this subject, but the remarks of Dr. Campbell prompt me to report a case in this connection :

A prominent man brought his son to me for an examination for varicocele and prospects for going to school. He had intended to send him to a military institute. He asked me whether an operation could be done so that the boy could go immediately to his studies. I advised him to let his son go, and that during the next vacation I would operation upon him. He went, and he was subjected to severe drill during his period there. When vacation came there was an unusual growth and vigor of body and a subsidence in part of the varicocele. I told his father that a continuation of the same treatment of delay was justifiable in his case. To-day he complains nothing of it, and I believe if there can be a spontaneous cure of the affection, this is one.

DR. F. W. McRAE, of Atlanta, Ga. : I agree almost *in toto* with Dr. Lydston's excellent paper. There are undoubtedly a number of patients who will not submit to the ideal operation, and they demand of us the simplest operation that offers hope of relief from this condition. I have seen several cases where I would have curtailed the scrotum and ligated the veins had they been willing to have it done. I have in several cases resorted to subcutaneous deligation without a single bad result, so far as I know, except in one instance, which I will mention. I do not think there is any good reason why we should have pyæmia as a result of the operation where thorough antisepsis is practised. A gentleman upon whom I operated, I met yesterday morning, when he handed me this discolored bandage which you see. It has been two years since I operated upon him. This is a new suspensory bandage, and he has only worn it three days. In the summer-time it is much worse. I follow the method as recommended by Keyes, and have not seen atrophy of the testicle. I do not see why we should have atrophy if the operation is done with sufficient care, where the vas deferens is not included in the ligature. The blood-supply of the testicle is such that we are not apt to cut off nutrition to such an extent as to cause atrophy.

DR. LYDSTON : I will endeavor to consider *seriatim* the points brought out in the discussion. Those made by Dr. Campbell have been touched upon in the

portion of my paper which was not read on account of lack of time.

In Dr. Westmoreland's case, in which he included the veins of the varix in the clamp and cut the whole mass off at once, though he did not kill the patient, it was nevertheless, in my opinion, a dangerous thing to do. I do not believe that the doctor himself would take such chances again. Probably the patient would not care to undergo another operation of the kind.

As far as catgut sutures are concerned, I formerly used them, particularly the chromic gut as prepared by MacEwan, but I have stopped using it since I have had some bad results. I found that catgut was not reliable ; I could not get good knots, and I believe that has been the experience of most surgeons. I am now using juniperized silk, which I prefer to anything I have ever used. I never have any bad results from irritation produced by the sutures. In my experience the knots become encysted or disappear. These sutures and ligatures are especially reliable in operation for varicocele.

Dr Roberts took the position that the majority of cases will be better off if let alone ; that they do not require operation. I touched upon this point in my paper. There are certain cases of marked varicocele that require operation. Such cases as were referred to by Dr. Campbell I described in my paper as cases of spermatic congestion, dignified by the term varicocele. Very frequently in these cases there are certain general and special symptoms incidental to masturbation, with which symptoms varicocele has nothing whatever to do. All such symptoms disappear when the patient is married. One of the early writers upon varicocele, Landouzy, of France, described these cases. Sometimes sexual intercourse, instead of relieving the varicocele, aggravates the symptoms, and there is an increase in the size of the varix.

Now, as to the indications for operation. There are some individuals who object to going about with a varix dangling about their legs. I think we all know of cases of this kind. Hardly a week passes that I do not see men sitting with their legs apart in a street car and exposing a large varix bulging through their pantaloons. I have operated on patients who had very large varicoceles who complained only of the deformity. I believe that when a varicocele is large it should be operated on ; but we should not urge patients to submit to an operation. There are certain cases, as I have stated, that require operation from the fact that the individual desires to go into military service, the varicocele being an obstacle to admission. There are many cases of pseudo-impotence which, while they may not be entirely dependent upon the varicocele, but upon the same causes as the varicocele, are relieved by operation. There are cases where the rubbing and profuse perspiration incidental to the relaxed state of the parts produce intertrigo and violent eczema. I have operated on such cases. In every case in which varicocele is probably the cause of sexual hypochondriasis an operation should be made. I care not whether the benefit derived therefrom be physical or moral, the patient asks for relief and it should be given him.

Dr. McRae said that these patients require the simplest method which offers the prospect of cure. They require something else. They require the safest method. There is no question in the minds of those who have studied this subject and have had large experience, but that curtailment of the scrotum is the ideal operation from the standpoint of safety. If the patient is made to understand that the operation is attended with less danger and that the result is better

in moderate varicoceles, he is apt to select that operation. If the varicocele is large, or if there be profound reflex disturbance of a mental character, or if, as is frequently the case, the patient has a severe backache, lumbar neuralgia, or vesical irritation, the case demands curtailment of the scrotum and ligation of the veins. I have seen some severe cases of this kind. I believe that cases of hæmidrosis of the scrotum are rare, but that when we have such cases they are dependent upon vasomotor changes, and that the particular cause is the same as that at the bottom of the varix, *i. e.*, some condition involving lack of vascular tone. The epileptic patient mentioned in my paper is an illustration of the fact that lack of nervous tone and consequent vasomotor disturbances are often the ultimate cause at the bottom of the varicocele. This man had epilepsy, probably not from syphilis, and was treated for a long time with mercury, potash, etc. He developed varicocele after the epilepsy. He also had stricture. One of his complaints was scrotal hæmidrosis, and within a very few hours after a suspensory bandage was applied it was absolutely saturated with the hemorrhagic oozing. I ligated the veins, cut the stricture at the same time, and, as an illustration of the vasomotor element in this case, I have never had such free hemorrhage in cutting the stricture in the penile portion of the urethra. I repeat the case at this point because of the interesting fact that I have recently had a letter from the patient, being a later report than that embraced in the body of my paper, in which he informs me that he has not had a fit for nearly five months and is getting fat. Possibly the result may be only temporary, but the case is exceptional, and I present it for what it may be worth.

The Polyclinic.

PHILADELPHIA HOSPITAL.

Dr. Deaver presented a case of traumatic aneurism of the femoral artery, in which the thigh measured thirty-four inches in circumference. Owing to the absence of pulsation and of decided bruit, the diagnosis had been difficult, in making of which the exploring needle had been the most important agent.

The appearance of the limb suggested osteo-sarcoma, from which the aneurism was differentiated by the following: It had not peculiar spindle shape of osteo-sarcoma; was movable, and disconnected from the femur; did not give the so-called egg-shell crackling found in osteo-sarcoma of large size, caused by the rubbing of thinned lamina of bone one against the other; absence of bruit (sound as of wind blowing through leaves) heard in osteo-sarcomas that are advanced and undergoing degeneration. Diagnosis from fatty tumor by inability to make it assume a saddle-shape upon grasping the skin and making it tense.

Relative to the exploring needle, Dr. Deaver said, it is not always safe to use it even in the extremities, and that it is not advisable to puncture in cases of osteo-sarcomas until ready to operate, as it hastens their growth.

The operation was ligation of the femoral at the proximal side of its rupture. Dr. Deaver said he would prefer to open the sack, turn out the blood clot, and tie the artery at both ends, but the necessarily fatal loss of blood contra-indicated this operation.

There are certain forms of retrodisplacement and prolapse of the uterus in old unmarried women. The

reason for these is a loss of tissue consequent upon senile changes. The walls of the vagina lose their support and allow prolapse without any pathological change except attenuation.—*Dr. Ashton.*

In all displacements when the uterus is bound down, no efforts should be made to break up adhesions, except by abdominal section.

—*Dr. Ashton.*

Dr. Marshall reported a case in which the tubercles of Montgomery, surrounding the nipples, developed into supernumerary nipples, eight on one side and six on the other.

Symptoms which are referred to a displacement of the uterus are sometimes really due to the weight of flabby abdominal walls. This condition sometimes also causes dyspepsia, by allowing distension of the intestines, thereby promoting decomposition of their contents and formation of gases.—*Dr. Marshall.*

The nipples should be frequently and carefully washed before confinement, as crusts form upon them which are removable only by careful and persistent washings. If not removed, and the surfaces bathed with some substance which will harden the skin, such as alcohol, when the child takes the breast they come off, and leave a raw surface, which becomes sore, cracked, and fissured, and presents a favorable ground for the development of germs and subsequent mammary abscesses.

When the nipples are depressed below, or do not project beyond the surface of the breasts, they should be manipulated until they attain their normal relative position; or they may be worked into their proper shape by suction through an ordinary clay pipe, placing the bowl over the nipple. Care must be exercised in these operations, however, as the sympathy between the breasts and pelvic organs may set up uterine contractions.—*Dr. Marshall.*

Dr. Vansant presented a case of a male adult, about to be discharged, who had been thought to have tuberculosis of the lungs, presenting, in addition to a family history of consumption, the following symptoms: A rapid, progressive emaciation, cough, excessive expectoration, night sweats, continuous high temperature. He also gave history of syphilitic infection, and had running from the ear and sore upon the nose. Blowing breathing and continued excessive expectoration pointed to syphilis of bronchi, and on antisyphilitic treatment all the symptoms rapidly abated, fever sank to normal and the patient gained eighteen pounds in a few weeks. While tuberculosis and syphilis may exist together, the marked improvement under treatment points to the conclusion that the trouble was all syphilitic.

Dr. Vansant also presented, for post mortem examination, a patient who had died of gout of the kidney. Patient had history of many acute and subacute attacks, and had chalky formations in the ears. Fatal attack had been in progress three or four days, when gout disappeared from toe, and immediately symptoms of internal gout appeared. During attack, which began March 26 and terminated April 10, there were the local symptoms, temperature 100 $\frac{3}{4}$, respiration 24, pulse 90, albumen in large quantities in urine, of which only 12 ounces were passed daily for several days. After a week eye-lids became oedematous, there was headache, nausea and vomiting, and local symptoms in the foot diminished. Urgent treatment for uræmia was instituted, and the urine, which had

been 8 ounces daily, was increased to 12 ounces, but vomiting continued and nothing could be retained on the stomach. There was some pain in abdomen, and patient died rather unexpectedly. The uræmia had been caused by gouty condition of the kidney.

On examination, kidneys were found to be small, granular, cortical substance, narrow; grating sound and rough feel on cutting, as of gouty deposits. On the surface of spleen were white spots, rough to the touch, and in the substance of the organ were found white, rounded hard bodies, probably gouty deposits. Mucous membrane of stomach was reddened, cedematous and congested, showed no ulceration, no roughness, no chalky deposits. In the serous coat of stomach there was no change. The congested condition of the stomach was probably due to vomiting caused by the uræmia. The lungs were small in size, and in their apices were rather hard nodules, which were thought tuberculous, especially as breaking down tissue was found about them. This may occur, however, about chalky formations. Serous coat of lung was unaffected. The heart was found enlarged, enlargement principally in left ventricle, valves normal, endocardium unaffected. Liver showed slight excess of connective tissue. No deposits were found on the external surface of the brain, although they are often found in its membranes. Its substance was to be kept for minute examination.

The diagnosis of gouty kidney was mainly based on the albuminous urine containing granular and hyaline casts, in connection with history of gout and increased size of the heart.

Redness of a structure should never puzzle any one. It is always due to a dilatation of the capillaries caused by their irritation.—*Laplace*.

Prof. Laplace, after removing a tuberculous gland, injects into the wound a 10 per cent. solution of iodoform in ether. The ether penetrates every part of the wound, and, evaporating quickly, deposits in every nook and cranny a minute quantity of iodoform, which is almost a specific against tuberculous growths.

The mucous membrane about the rectum is naturally loose. When there are piles, when there is a fistula, when there is any condition which requires surgical procedure, as a result there will be stretching of that loose mucous membrane on cicatricial contraction. In other words, here I find the membrane loose and a pile hanging down. I have performed two minor operations (for fistulæ), and as a result I know there will be a stretching of the mucous membrane, which will be a spontaneous cure of this hemorrhoid; therefore, never remove every pile in a case of hemorrhoids, but leave at least a small one, in order to allow for the stretching, otherwise there is likely to be traumatic stricture of the rectum.

—*Laplace*.

Baby's dress "should be comprehensive, inclusive, and unobtrusive," and of the utmost simplicity. The dress should be warm, soft and elastic, and allowing freedom of movement. If it can be afforded, Jaeger's flannels are of the best. Simplicity and comfort are the great desiderata; all lace and embroidery should be omitted, and everything should be of the finest, though plainest, material. As few pins as possible should be employed, using buttons and tapes instead. In dressing, the child should be jostled as little as possible. The garments should be made so as to slip one inside of the other, the waist having several rows of buttons to accommodate several skirts. The ab-

dominal binder should be knit, the shirt of thin woolen and with long sleeves. The next garment should be of flannel, with an outside slip of muslin, these being put together and put on all at once. The diaper should be soft and large enough to protect, and must be changed often. Socks should be knit and long. When the child is older the skirts may be shorter and should have support from the shoulders.—*E. P. Davis*.

THE MODERN TREATMENT OF SYPHILIS.—As regards the treatment of syphilis, mercury was now almost universally recognized as the best remedy for it, except in Scotland. As regards the latter, Mr. Hutchinson remarked that he thought some of his worst cases came from that country. The methods of using mercury were the internal and external. Inunction and fumigation were the most efficient measures of application for cases in which the other methods are not suitable, but for all ordinary cases the administration by the mouth is the most convenient. The grey powder is the best form to prescribe, it may be given in one-grain doses, with one grain of Dover's powder, three times a day. The frequency of the dose should be increased, not the dose itself, when further effect was desired. Simplicity in prescribing is everything to those busily engaged in practice. The mercury should be given before the appearance of the secondary symptoms, and it usually prevented the onset of the latter. Is mercury a specific for syphilis? Mr. Hutchinson considered that it certainly was, and that it killed the particulate virus upon which syphilis depends. In nine cases out of ten this treatment was probably successful in preventing secondary manifestations. Idiosyncrasy as to mercury, showed itself in two ways, those in whom it acted as a poison, and those in which it failed to act. Those who are very susceptible can usually be suited by reducing the dose sufficiently.

Iodide of potassium is of very little use in the secondary stage of syphilis. The iodides of mercury are much less satisfactory than the grey powder (hyd. c. cret.). When sores are present in the tonsils, mercury may irritate; in these cases the latter drug should be reduced, and iodide of potassium given in mixture separately. As regards phagedæna, the main point was to treat it efficiently locally, giving possibly opium internally. Iodoform is the best local measure, and since the introduction of this drug far less severe results of phagedæna had been witnessed. Cauterization with the acid nitrate of mercury may also be employed. Some of the worst forms of phagedæna occur during a second attack of syphilis.

A course of mercury should last over a long period; six months to a year. The long course usually does the patient's general health good. A minority are made irritable and susceptible to colds. Such benefit is sometimes derived from the drug, that one patient had exclaimed to Mr. Hutchinson, "before I had syphilis my life was a burden to me." It is a valuable remedy also for dysmenorrhœa, and many forms of chronic inflammation.

Does the apparent cure of syphilis by mercury place the patient in a better position as regards the tertiary manifestations? Mr. Hutchinson stated that it was extremely difficult to decide definitely on this point by any statistics, pointing, however, strongly to the conclusion that it did so, was the fact that the severe forms of syphilis were becoming less frequent year by year. The bad cases of bone disease, periostitis, etc., were much less often seen now.

—*Med. Press and Circ.*

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UNREFRESHING SLEEP.

SLEEP is not always "nature's sweet restorer;" but sometimes the sleeper awakes with a sensation of fatigue or of unpleasantness, that is quite the reverse of the renewal of life. The reasons for this are many; sometimes the beginnings of disease; the presence of noxæ imbibed during the night, etc., etc. Broken rest is an early symptom of incipient typhoid. Frightful dreams precede the outbreak of this and other septic fevers, and with these we have also soreness of the softer tissues, and a condition of semi-conscious sleep, resembling the coma-vigil that comes later.

Unrefreshing sleep may also occur from too much food, too little food, or food of improper quality. Late and heavy suppers, and the consequent nightmare, need more than a reference here. Plethora sometimes produces wakefulness in itself, or through the distressing attacks of pruritus it occasions. On the other hand, thin-blooded persons often sleep badly because they take an early supper, and their brains are too anemic for sound slumber. A happy man may require depressants and abstinence in one case, and something to fill the veins and increase the pressure in the cerebral vessels on the other. A glass of beer at bedtime gives so much relief here that this has become a very popular remedy. Much better is a cup of hot milk, beef-tea, or clam juice, as being more nutritious and less objectionable in every way. The habit of drink is often set up because the physician is not wise enough to recognize this pathological condition, and recommend a palatable and harmless substitute for the "night-cap."

Many cases of unrefreshing sleep are due to the absorption of noxious matter into the body during the night. This may be due to insufficient ventilation of the bedroom; to the escape of sewer gas into it; or to the auto-intoxication from absorption into the blood of substances contained in the intestinal canal. An enema at bedtime will then remove the cause of

unrestful sleep. This is one of the cases in which flushing of the colon gives a temporary sense of well-being; though there are grave objections against the use of this procedure except occasionally.

Bodily or mental fatigue, generally the latter, often cause inability to soundly sleep. Perhaps this is the most serious form of the malady, as in it there is the greatest temptation to abuse the hypnotics. And yet of all this is the most simple and easy to treat; as a hot bath is a certain remedy. Many an opium habitué has become such for want of a bath-tub and a few gallons of hot water; but with the perversity of mankind they turn from a trifling expense to a drug that brings certain ruin with it.

Macfarlane has recently called attention in *The Lancet* to a more serious form of this malady. The patient's sleep is unusually sound. He wakes early, in distress, covered with cold sweat, and tortured with presages of disaster. Some confusion or aberration of the intellectual powers may be manifested on awaking. Sometimes these attacks are periodical; at others they follow some special freak or exposure. The patients are invariably neurotic and neurasthenic. All exhibit a lessening of mental force, with despondency and self-questioning. Those with whom excesses have preceded this state are apt to be depressed on going to bed; while if spanæmia be the underlying cause there may be a feeling of exaltation. In such cases the nervous system should be carefully scrutinized, and the possibility of nocturnal epilepsy should be borne in mind. Asthma, pregnancy, and the menopause have been noted in such circumstances.

The presence in the blood of bile, urea, uric acid, alcohol, etc., may give rise to morbid sleep. Consumptives usually feel weakest on awaking; even when there have not been night sweats. Nocturnal insanity has been described.

Macfarlane makes the following suggestions as to treatment:

It is beyond the scope of this brief note to consider the treatment of such cases at length, entailing, as that would do, the hygiene and therapeutics of many diverse conditions. It will suffice to indicate that it must be of a twofold description. First, that directed to the condition of the patient; and, secondly, that adapted to alleviate the morning misery. The former, which is the essential element, involves the consideration of measures calculated to accomplish restoration of nervous energy, and the excretion of waste products, in which diet and regimen exceed medication in value. The latter, being palliative, is of secondary importance. The indication is to flush the brain with blood as speedily and thoroughly as possible. This can be done by two methods: by way of the nervous and of the vascular systems. Mosso demonstrated that a ray of light falling upon the eyelid of a sleeping man caused an increased blood-supply to the brain, by stimulating activity in the nervous centers. This accords with the physiological law which decrees that the blood-supply of an organ is in ratio to its activity, and it explains to a certain extent the invigorating effects of sunshine. A bright light shortens and decreases the acuteness of the attack. Equally warm and stimulating drinks, by increasing the frequency and force of the heart's action, afford much relief. The addition of a grain or two of caffeine, and, in certain carefully selected cases, of a spoonful of brandy, is helpful. In some, full doses of valerian, ammonia, and chloric ether act quickly and well. In all urgent cases, in which the recurrences are frequent and severe, I advise a light to be kept burning all night and an attendant to sleep in the same room.

Annotations.

THE COLLEGES.

THE commencement of Jefferson Medical College was held April 15, when one hundred and eighty-eight graduates received their diplomas.

On April 16, the Medico-Chirurgical College graduated a class of thirty-five, the largest as yet in her history. The Alumni oration was delivered by Dr. Frank Woodbury, at the college, on April 14. After the meeting closed the Alumni met at the Colonnade Hotel for the annual banquet. Eight-five guests sat down to the feast, which was prolonged by the speech-making to 2 A. M. At that hour the meeting adjourned, and it may illustrate the high grade of the Medico-Chirurgical men that there was not one present who was not on his feet, quiet and reverent, while the benediction was being pronounced. That among so many men, most of them young, celebrating the close of their college career and entrance into the active life of the world, there should not be one unduly hilarious individual is worth noting.

The University of Pennsylvania will hold its commencement next month. The graduates number one hundred and thirty-three, and there were twenty who failed to pass the examinations.

ANTIPYRINE IN EPILEPSY.

IN the *American Journal of the Medical Sciences*, McCall Anderson reports a case of epilepsy of two and one-half years' duration, cured by antipyrine. The patient was nine years old. The first fit followed an injury to the head. Antipyrine was given in doses of 5 grains thrice daily, 1 grain being added to each dose each day, until the daily dose reached 75 grains. In fifteen days the fits had ceased, but the doses of antipyrine were not lowered to 1 dram daily until twelve days later. Twelve days after this one slight fit occurred, and the full dose given above was then resumed and continued. Six weeks later the fits had not recurred.

This history renders it probable that antipyrine has some power of controlling epilepsy, though it has failed signally in extended trials. But to claim a cure of an epilepsy of two and one-half years' standing simply because the convulsions have not appeared for six weeks is somewhat hasty. Longer intervals than this sometimes occur without the exhibition of any drugs.

THE *Lehigh Valley Medical Magazine* states that last fall there were reported 490 cases of typhoid fever in and near Bethlehem, with 32 deaths—a rate of 6.53 per cent. The sewage is deposited in pits in the limestone on which the town stands, and the water supply comes from a spring at the foot of the hill. Then, when people get typhoid fever and die, the proper caper is to bow before the mysterious dispensation of Providence, and continue to use the polluted water.

IT appears that the education supplied by Scotch and Irish medical schools is so thorough that the English hospitals are compelled to declare the graduates of these schools ineligible, that the English candidates may obtain the appointments. The same cowardly policy is shown by some of our city hospitals, whose managers, being devoted to the interests of one medical school, dare not open the appointments to a competition their friends are unable to sustain.

Letters to the Editor.

MALARIAL HEMATURIA.

IN your issue of the 11th inst. you allude to two articles on "Malarial Hematuria" in the April number *Atlanta Med. and Surg. Journal*, and in your criticism of Dr. Howel's article you ask the following:

1. Does hemoglobinuria ever occur in malarial cases, where no quinine, arsenic or calomel has been given?
2. What is the course of the disease if uninfluenced by treatment?
3. On what proportion of cases do the symptoms become graver after the administration of these or other drugs, given singly?

As I was the author of one of the articles that appeared in the *Atlanta Medical and Surgical Journal* of April, I thought I would answer the three questions, as I have seen the disease.

1. Hemoglobinuria does occur where no medicine has been given.
2. The course of the disease uninfluenced by treatment is an increase in the gravity of all the symptoms to a fatal termination.

As to the third question it is a difficult matter to make a satisfactory answer, as the serious nature of the disease and its rapid fatal termination, forbid the physician, who has a remedy that he can successfully rely upon, making any experiments. I abandoned quinine in the treatment of this disease, because after I had relieved patients of all the symptoms of the disease, I have brought on the hemorrhage by the administration of quinine, given for the purpose of preventing a recurrence of the chill. Upon one occasion I brought on hemorrhage the second time by the administration of quinine. I never gave calomel in large doses, or as a purgative, but as a capillary stimulant in one-half to one-grain doses repeated at intervals from one to two hours, and never give over three grains; this I give whether the bowels are acting or are constipated. While I never have treated a case of malarial hematuria with large doses of quinine alone, I do not believe a case of quinine hemaglobinuria could be produced where there was no malarial hemaglobinuria; it has, in my opinion, caused a recurrence of the malarial hemaglobinuria. What success I have had in the treatment of this disease has been without quinine, but in no case have I given large doses of calomel.

B. W. MASON.

SHERIDAN, ARK.

The Medical Digest.

PEROXIDE OF HYDROGEN is the best of all cleansers where there is pus, and in necrosis, pus is always present. Before the application of antiseptics, in order that the medicaments may be certainly brought in direct contact with the diseased tissue, peroxide should be employed to remove the pus, blood or dead tissue which might otherwise intervene.

—Gilmer, *Dental Review*.

It is in neuralgic affections, and particularly in facial neuralgia, tic douloureux, and inferior dental neuralgia, that gelsemium has manifested the most signal therapeutic efficacy. We might, had we room, cite a long list of clinical authorities, in this country and abroad, who have found gelsemium a most efficient, if not always safe, antineuralgic. The dose is

from 2 to 20 drops of a saturated tincture, or of the fluid extract, repeated every two or three hours, till the pain is controlled.—*Therap. Gazette.*

WHEN the physician is in a position to exert influence in such a matter, the following general rules should be borne in mind :

1. No marriage should occur between persons having the same hereditary tendency to disease ; and this is especially important in marriages between relatives.

2. A girl should not marry under the age of twenty.

3. A person afflicted with hereditary or well-marked tubercular taint, or with constitutional syphilis, or insanity, should not marry at all.

—Birchard, *Lancet-Clinic.*

THE following formula, apparently the invention of a country practitioner and much used by him in his skin cases, was found to be extremely useful in routine practice, wherever sedation with mild stimulation was indicated—or, in other words, it was a most excellent first prescription for nearly any skin disease having an inflammatory element.

R.—Terebinth. canadensis 3ss–3j.
Acidi tannici 3ss.
Glyceriti acidi tannici 3jss.
Zinci oxidi 3j.
Adipis 3j.

M.—Ft. ungt.

This formula bears internal evidence of having been evolved and perfected from the exigencies of a country practice. It certainly was never borrowed from the writings of our great specialists, yet the writer knows of no one formula of greater range of applicability. We may note besides, that it is better to apply it by smearing it directly on the affected skin, for very many other salves produce their good effects only when applied like a poultice, by spreading them thickly on lint.

—Preble, *Columbus Med. Jour.*

DYSMENORRHOEA.—The materia medica furnishes remedies only for the neuralgic and the congestive forms of dysmenorrhœa, the membranous not being amenable to treatment. In the neuralgic form much benefit may be derived from the exhibition of drachm doses of fluid extract of viburnum prunifolium three times a day for a week before the molimen. Apioi is also valuable in such cases, being less valuable in the congestive variety. It should be given in the same manner in from 3- to 5-drop capsules.

In the congestive form I think I have been able to furnish considerable relief by the employment of large doses of bromide of potassium in connection with the black haw.

The cases which tax the practitioner's tact are those occurring in young girls, to whom even the suggestion of a physical examination is repulsive. In such cases the only feasible plan is to subject the patient to the treatment for the neuralgic and the congestive varieties. Should this prove futile, it is fair to assume the existence of the obstructive form, in which case operative interference of the nature above suggested can alone furnish any hope of relief.

—Mulheron, *Jour. of Gynec.*

PYOKTANIN IN CANCER.—In considering my experience with pyoktanin as well as ethyl pyoktanin in my private patients, I should like to state the following facts in regard to the treatment of inoperable

malignant growths with these aniline dyes, as far as they have been exhibited up to date (April 8):

The aniline dyes, applied on the surface of exulcerated growths in ointment or powder (about 1 to 200), or in substance, have a strong analgesic effect.

Parenchymatous injections of pyoktanin solution, 1 to 300, repeated every second day till fifth day, the dose not exceeding 1½ drachms, have in my cases proved to be innocuous to the general system.

The symptoms following the injections are either general or local.

The general symptoms, which can also follow the internal use of methyl blue, are nausea or vomiting, weak and slow pulse, headaches, general malaise. These symptoms may come on the same day or the day following the injection ; as a rule, they do not come at all ; now and then there is a slight rise of temperature, usually subsiding within twenty-four to forty-eight hours.

The local symptoms are :

1. Pain following the injection. It may be of long or short duration, slight or severe. It is more severe where the cancerous infiltration affected by the injection is dense (epithelioma of face, disseminated cancer of breast, etc.). It seems that local anæsthesia may follow the injection.

2. Œdema, coming on either acutely, and then accompanied with slight redness (non-inflammatory) and pain on pressure, or rather in a subacute form. This serous transudation of the growth may be the first step to reabsorption. The slight fever, observed in a number of patients, soon following the injection, had then to be looked at as being an aseptic one, possibly due to this reabsorption.

3. Breaking down of the injected tissue, with perforation of the skin or scar, which latter is the result of the operation (aseptic necrosis). By using a stronger solution, 1 to 200, the necrobiosis seems to be more rapid in smaller nodules. How far the surrounding infiltrated shell, which is left behind, is apt to spread farther, can only be determined by continuous observation. It may be advisable to use a weaker solution, 1 to 500, instead of 1 to 300, as we can thus dye a larger portion of the growth in one sitting, without increasing the dose of pyoktanin. We then inject a larger quantity of solution and still need not apprehend general symptoms. Perhaps the weaker solution will not destroy the tissue so rapidly and thus rather induce reabsorption than necrosis. The sinus or sinuses established by the breaking down of the tissues give exit to a thick, dark-blue fluid, which, by microscopical examination, proves to be not colored pus, but débris of the injected neoplasm. It is generally intermingled with shreds of necrosed tissue. In splitting these tissues one may find necrosed, deeply dyed, ramified tissue, surrounded by normal undyed fat and muscles, which is easily shelled out. Whether it will be necessary and possible to remove the necrosed tissue by operation, or whether this tissue will be extruded by means of a slow disintegration and longer secretion, cannot yet be determined. We also have to prove yet, whether operative interference in this stage will really benefit our patients. Perhaps nature gets slowly rid of the necrosed tissue without help. As it seems, the carcinoma tends more to necrobiosis and perforation during this treatment than the sarcoma. I personally could so far only subject cancer cases to the color cure. (V. Mosetig had his most striking results in patients suffering from sarcoma [see, above]. He maintains that the injections, made under antiseptic precautions into neoplasms, which are still covered

by healthy skin, produce necrobiosis and fatty degeneration, which is not followed by perforation, but by reabsorption. Billroth, on the other hand, saw rapid softening and perforation in two out of three patients who suffered from sarcoma and were treated with the injections.)

4. Breaking down of the injected tissue (necrobiosis) with subsequent reabsorption (Cf. 3). This will probably be oftener seen, if we stop the injections for some time as soon as spots in the growth have softened, and only start them again after these spots have shrunk (provided, of course, that they did not perforate). Small, hard nodules in the skin, as seen especially in the disseminated cancer (recurring cancer of the breast), can entirely disappear in a very few days, even if the pyoktanin solution was injected into their base. Perhaps the rapid disappearance is not reabsorption, but only an illusion, which is caused by the œdema of the immediate surrounding tissue. A number of the nodules reappear after a few weeks, sometimes rather multiplied. The attempt at dyeing these small nodules directly, by pushing the needle right into them, is frequently unsuccessful, even in regard to the microscopical appearance, and causes severe pain.

An infiltration of hitherto healthy tissue with the neoplasm, in consequence of this treatment, has not been observed in a single case.

In no case did the growth spread during the treatment.

Applications of pyoktanin in substance on exulcerated tumors slowly removes the diseased tissue in the shape of dry gangrene. There is no suppuration under the eschar, on account of the strong antiseptic qualities of the dye, and consequently no cachexia. Pyoktanin is, however, no deodorizer. It also is no stypticum.

It may be advisable to combine the parenchymatous injections and local application of pyoktanin with giving aniline dyes internally. Pyoktanin is, in my cases at least, not borne by the stomach. Methyl-blue seems at present to be the most preferable.

If it could be proved by further observations that continued injections determine the necrobiosis of "all" the diseased tissue, the use of the aniline dyes, especially pyoktanin, in its different ways of application, and methyl-blue, will have a permanent place in operative surgery, no matter how much time the cure demands, no matter whether it is accompanied by pain, inconvenience and dangers to the patient.

—Willy Meyer, *Med. Record*.

ANTISEPSIS IN TYPHOID FEVER.—As the administration of quinine forms an important part in the method of treating cases of typhoid fever that I have long adopted, I will now describe that method. I have found, as Murchison had done many years ago, that of all antiseptic remedies free chlorine is the most useful. "I have repeatedly found it," says Murchison, "to have a beneficial influence upon the abdominal symptoms," and he describes how a solution of the gas may be readily obtained. I follow his plan, but I prefer rather different proportions. Into a twelve-ounce bottle put thirty grains of powdered potassic chlorate, and pour on it forty minims of strong hydrochloric acid. Chlorine gas is at once rapidly liberated. Fit a cork into the mouth of the bottle, and keep it closed until it has become filled with the greenish-yellow gas. Then pour water into the bottle, little by little, closing the bottle, and well shaking at each addition until the bottle is filled. You will then have a solution of free chlorine, together

with some undecomposed chlorate of potash and hydrochloric acid, and probably one or two bye products. I greatly prefer this preparation of chlorine to the liquor chlori of the British Pharmacopœia; it is much pleasanter to take, and I have had much better results with it. To twelve ounces of this solution for an adult I add twenty-four or thirty-six grains of quinine, and an ounce of syrup of orange peel, and I give an ounce every two, three, or four hours, according to the severity of the case—that will be from twelve to thirty-six grains of quinine in the twenty-four hours, according to the case. I have for some years past treated all my typhoid fever cases, except the very mild ones, which have not appeared to me to require any active medical treatment on this system. They have not been very numerous, but they have been *consecutive* cases, and they have all done well.

In giving this mixture to a typhoid fever patient one of the first results you will notice is a remarkable cleaning of the tongue. You will scarcely ever find a dry, dirty, thickly coated tongue in a patient who has been early put on this mixture. Another most important change has been noticed again and again, and reported to me by the nursing sisters in our hospital; it is that the fetor of the evacuations, which have often been very offensive, will usually disappear within twenty-four to forty-eight hours of the commencement of this treatment. Now this appears to me to be a very interesting and important point. We should expect that this mixture would be wholly absorbed in the stomach, and that it would not reach the lower part of the small intestine directly. Yet it certainly exerts an antiseptic action on the intestinal contents. May it not be that it exerts its antiseptic influence in the blood, and there encounters and neutralizes some septic substances generated by the typhoid bacillus, so that the excretions into the intestine are modified, and so an antiseptic effect on the intestinal contents is produced? In this way we not only obtain *intestinal* but also a *general* antiseptis. The illustrative cases I am about to submit to you have enabled us to observe the following effects as resulting from this treatment:

1. A modification and sustained depression of the febrile temperature.
2. An abbreviation of the average course of the fever.
3. A remarkable maintenance of the physical strength and intellectual clearness of the patient, so that there has been far less need of stimulants.
4. A greater power of assimilating food.
5. A remarkable cleaning of the tongue.
6. A deodorization of the evacuations.
7. A more rapid and complete convalescence.

Burney Yeo, *The Lancet*.

EARLY DIAGNOSIS OF TUBERCULOSIS.—Dr. Miri-nescu, in the *Revue Mensuelle des Maladies de l'Enfance* (March), points out that the existence of enlarged lymphatic glands in various regions of the body (axilla, groins, etc.)—"peripheral polyadenitis"—may afford considerable assistance in doubtful cases in making the diagnosis of tuberculosis in children. If the child is in an emaciated debilitated condition, and if there are no superficial lesions to account for the glandular enlargements, he considers the evidence in favor of tuberculosis very strong. In fifteen out of the sixteen cases of this nature examined, the glands were proved by experimental inoculations to be tuberculous. This peripheral polyadenitis may be observed in children as young as fourteen or fifteen months.

—Brit. Med. Jour.

INTESTINAL OBSTRUCTION:

A. ACUTE OBSTRUCTIONS.

TREATMENT.

1. Malformations:

Persistent ano-rectal septum. Division of septum.

Absence of portion of tube. Ano-enterorrhaphy, if practicable.

2. Hernia.

1. Taxis.

2. Herniotomy.

3. Internal strangulation.

Abdominal section and division of "ring" or adhesion.

4. Volvulus.

1. Position and taxis.

2. Abdominal section.

5. Intussusception.

1. Early diagnosis: opium, etc., with abdominal section.

2. Late diagnosis: absolute quiet and opium.

6. Enteroliths and foreign bodies.

1. Olive oil in large doses by mouth (3 ounces every half hour) and anus (1 to 3 pints) by rectal tube.

2. Abdominal section and enterotomy; or colotomy.

B. CHRONIC OBSTRUCTIONS.

7. Fecal impaction.

Olive oil, large doses (as above), by mouth and anus.

Soap suds and oil by proper rectal tube (see figure and description of tube).

8. Paralytic conditions.

Olive oil as laxative; strychnine and other tonics.

General hygiene and attention to cause.

9. Cicatricial stricture.

1. Olive oil as a palliative.

1. Sulphur or pulv. glycyrrhizæ co. ditto.

2. Rectal stricture: dilatation or posterior division.

3. Supra-rectal, colotomy; or laparotomy, with colectomy.

10. New growths, intramural.

Same as last, except dilatation.

11. New growths, extramural.

Abdominal section and removal.

12. Pressure from viscera.

Treat cause—trusses, supports, etc. Possibly laparotomy and suture.

POISONING BY ROBURITE.—I was urgently called to T. G., aged sixteen, at 9 A. M. The mother stated that she had been recommended to sprinkle roburite upon the floor of her son's bedroom, to clear out the cock-roaches. In this room slept a male friend (for the one night). I found the patient cyanosed, blue-black in hue to his very nails; tongue, lips, and mouth nearly black; body and face livid. The temperature was subnormal. He was shaky and cold. There was dyspnoea, respiration being hurried and labored. Pulse 135; very weak; great depression. The treatment employed was removal from the room, stimulants of all kinds, medicinally and otherwise, hot milk, and beef-tea. Hot water bottles to all parts of body, enveloping in hot blankets. The other lad was not so much affected, although slightly cyanosed. Evidently the inhalation of the fumes of the roburite caused the mischief. Gradually T. G. improved, but at 5 P. M. there was a relapse. On the third day the temperature was normal, after which recovery was rapid.

With regard to the action of this poison, we are taught that the fumes of roburite, when inhaled into the system, are exceedingly deadly, even in the smallest quantities; that when these fumes are inhaled in a coal mine, they carry with them two poisonous gases—nitric oxide and carbonic oxide; that incomplete combustion of roburite allows the deadly elements of the components nitro-benzine to escape and freely mix with the air, where it can be inhaled or absorbed by contact with the skin. Of course in this case there was no probability of combustion.

—Spurging, *Brit. Med. Jour.*

Medical News and Miscellany.

DR. L. H. ADLER, Jr., has removed to 1610 Arch street, Philadelphia.

HOT CLARET is said to be a good gargle for sore throats. It is most valuable as a preventive.

DR. H. A. STARKEY, of Hegewisch, Ill., met with a painful injury recently, while stepping into his carriage.

DR. FRANK J. WEED, Dean of Medical Department Wooster University, Cleveland, died last week of pneumonia.

JUDGE PARDEE has enjoined Finlay & Brunswig, of New Orleans, from selling their bromidia, an imitation of the well known preparation of Battle & Co.

DE SCHWEINITZ reports persistent hemorrhage from the conjunctiva of a new-born infant following the instillation of a solution of nitrate of silver, 2 to 4 per cent. The hemorrhage continued for three days.

THE JOURNAL OF GYNECOLOGY makes its appearance as a neat monthly of 64 pages, edited by Charles N. Smith, M.D., of Toledo, Ohio. The price is \$1.50 per annum. In the first number appear papers by Drs. Mulheron, Ricketts, Sprague and Rosenwasser.

The Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis, Wednesday, Thursday and Friday, October 14, 15 and 16, 1891. A large attendance, a valuable programme, and a good time are expected. The members of the medical profession are respectfully invited to attend.

BREEDING BACTERIA.—Prof. Koch has been making experiments respecting the influence of sunlight upon the growth of germs. The results are very significant, showing very clearly the important relation of sunlight to health, especially as a disinfectant. We quote a portion of his remarks as follows:

"As to direct sunlight, it has been well known for some years that it kills bacteria with tolerable quickness. I can affirm this as regards tubercle bacilli, which were killed in from a few minutes to some hours, according to the thickness of the layer in which they were exposed to the sunlight. What seems to me, however, to be particularly noteworthy is that even ordinary day-light, if it last long enough, produces the same effect."

At the Cooper Brass Works, No. 442 North Thirteenth street, may be seen samples of water-closets, that have no wood-work or closed spaces about them.

A NEW WAY FOR TRICHINÆ TO INVADE: BOUND RAW PORK ON THE NECK.—"ONEIDA, Kas., March 2.—The child of Anton Rudolph is in a deplorable condition from the effects of binding raw pork on its neck. The little one was suffering from a sore throat and the parents bound it with a piece of bacon which was affected with trichinæ. From a slight abrasion on the child's neck a fearful sore developed, which has spread around the neck and over the breast. The attending physician pronounces it a trichinous affection."

The above has been going the round of the dailies. It shows how ignorant a physician can be. Trichinæ cannot invade by that way; they must first become free, then copulate, then produce young. It is the embryo that invades.

WEEKLY Report of Interments in Philadelphia,
from April 18 to April 25, 1891:

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Abscess.....	2	3	Hemorrhage.....	2	1		
Alcoholism.....	1		Homicide.....	1			
Apoplexy.....	6		Inanition.....				8
Asphyxia.....	1		Influenza.....	13	2		
Aneurism of the aorta.....	1		Inflammation brain.....	3	16		
Bright's disease.....	4	1	" bronchii.....	9	7		
Cancer.....	4		" kidneys.....	4	2		
Casualties.....	3		" larynx.....	1			
Cerebro-spinal meningitis.....	2		" liver.....	1			
Congestion of the brain.....	5		" lungs.....	33	23		
" lungs.....	8		" peritoneum.....	5	2		
Cholera infantum.....	1		" pleura.....	2	1		
Cirrhosis of the liver.....	1		" s. & bowels.....	5	4		
Consumption of the lungs.....	49	6	Jaundice.....	1			
Convulsions.....	1	27	Leucocythemia.....	1			
Croup.....	1	6	Marasmus.....				16
Cyanosis.....	2		Neuralgia, heart.....	1			
Debility.....	2		Obstruction of the bowels.....	3			
Diarrhœa.....	1		Old age.....	22			
Diphtheria.....	1		Ossification of the heart.....	1			
Disease of the heart.....	23	2	Paralysis.....	10			
Drowned.....	3		Rheumatism.....				
Dropsy.....	1		Sclerosis, spinal.....	1			
Dysentery.....	1		Septicæmia.....				1
Empyema.....	1		Small-pox.....				1
Erysipelas.....	1		Softening of the brain.....	1			
Enlargement of the spleen.....	1		Stenosis of the heart.....	1			
Extra-uterine foetation.....	1		Suicide.....	3			
Emphysema.....	1	1	Teething.....				4
Fatty degeneration of the heart.....	3		Tetanus.....				1
Fever, malarial.....	1		Uremia.....	8			
" scarlet.....	1	8	Whooping cough.....				2
" typhoid.....	19	11	Total.....	267	201		
Gangrene.....	2						

ARCOT is not and will not be a competitor for the *Association Journal*, so Washington or Chicago need not be the least bit alarmed. Still it has some advantages which would go far toward making it a success not enumerated by our distinguished Pittsburgh contemporary. In the first place, there would be no local cliques to intermeddle with its management. Second, it could be published here at 30 per cent. less cost to the Association than it has cost heretofore. Third, its editorial staff would have the advantage of an unlimited and uncontaminated supply of oxygen, which is said to be superior to coal smoke as a cerebral stimulant, and would be very handy to enable them to form definite opinions on questions that might from time to time arise.

—*The Country Doctor.*

DISPENSING ON BOARD SHIP.—Curious yarns are spun about the method of dispensing followed by divers captains on deep water. The sea lawyer usually found in a ship's fore-castle fondly asserts that each bottle of the medicine chest bears a distinguishing number, and upon this foundation proceeds to build the following story, which is redolent of the salt sea: An illiterate shipmaster, having consulted his book of medical instructions, found that a strong dose from number six bottle was the proper remedy for a sick sailor standing before him. Number six, however, had been in great request during the passage, and not a drop remained. For a moment the amateur doctor was at a loss. An inspiration opportunely caused him to corrugate brow to smoothen. He mixed together portions from bottles number two and number four, on the strictly arithmetical principle that two and four make six! Deponent sayeth not what effect, if any, the dreadful decoction had upon the seaman. Another story tells equally against the sister service. It is related that a lieutenant, in command of one of Her Majesty's gunboats, deemed the responsibility of the charge of a medicine chest too much for him. Immediately she was off soundings the gallant officer mustered all hands, and divided the contents of the chest equally, so that each had "his whack and na mair."

WE would like to see more made of the natural summer advantages of the Maritime Provinces as health and pleasure resorts for Americans and our Upper Canadian compatriots. The summer temperature of these provinces is cooler than that of the States and of Western Canada, and with the unsurpassed natural beauty of many places, and the surrounding bathing and boating facilities, and means of pleasant out door recreation generally, we believe that half a dozen sanatorium hotels could be filled. The advantages of many beautiful places in New Brunswick, of the suburbs of Charlottetown, of the Digby Basin, Cape Breton, and other places in Nova Scotia, need only to be boomed to be made more and more use of.—*Manit. Med. News.*

VACCINATION IN THE PUNJAB.—Dr. Dyson, Deputy Sanitary Commissioner of the Punjab, is carrying out some interesting experiments at Amritsar in connection with vaccination and the transmission of lymph. The Sanitary Commissioner of Madras has discovered that lymph is capable of being kept for a long period if mixed in a particular way with lanoline. At present lymph, as taken from the vesicles, cannot be kept for more than a couple of days. Dr. Dyson is not only testing the Madras experiment, but is trying to improve on it; and it is quite likely that the barbarous system of vaccinating from arm to arm will be entirely abolished; and, moreover, the objections that some orthodox Hindus have to the use of lymph direct from the calf will also be removed, by doing away with calf lymph and substituting for it that obtained from lambs and donkeys.

—*Ind. Med. Gazette.*

EXTRACT from Regent's record, University of Nebraska, April 8, 1891 :

WHEREAS, The live stock interests of this State, represented by a special committee, and otherwise, request and urge the renewal of investigations of diseases of domestic animals, and that Dr. F. S. Billings, or some person of equal earnestness and ability, be appointed to conduct and carry on such investigations.

AND WHEREAS, This Board is convinced of the importance of said measure, and the magnitude of property interests involved; now therefore be it

Resolved, That this Board take steps to renew at the earliest practicable moment such investigations; that Dr. F. S. Billings be employed for a period of one year from July 1, 1891, to conduct said investigations under the authority and direction of this Board; that for the purpose of covering the cost of said proposed investigations there is hereby appropriated from the Hatch Experiment Station fund, so-called, for the year commencing July 1, 1891, the sum of \$10,050.00, to be applied as follows:

Salary of Dr. Billings.....	\$3,600 00
Salary of assistant.....	1,200 00
Salary of chemist.....	2,000 00
Fitting up building.....	750 00
Laboratory equipment.....	500 00
Incidental expenses.....	2,000 00

Total	\$10,050 00
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That payment of salaries be made quarterly, or monthly, if practicable, and that other expenditures contemplated be covered by duly approved vouchers, as are other obligations of the Experiment Station and the University.

Resolved, That the Fine Stock Breeders' Association be and are hereby requested to appoint a conference committee of not less than three prominent and experienced live stock men, who shall observe, suggest and recommend concerning experiments and investigations, and the character of the work of the investigator selected, and meet from time to time with the Board and confer thereon, and also use their influence through the State to advance and promote the service hereby contemplated.

Adopted. A true copy.

J. S. DALES,
*Secretary of the Board of Regents,
University of Nebraska.*

The Times and Register.

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	PAGE		PAGE		PAGE
CLINICAL LECTURE.		LETTERS TO THE EDITOR.		Rational Treatment of Malignant Growths.	
VAGINITIS. By E. E. Montgomery, A.M., M.D. - - - - -	379	Gastric Suppositories - - - - -	389	Adamkiewicz - - - - -	391
ORIGINAL ARTICLES.		The Liberal Manner in which the Philadel- phia Polyclinic Hospital is Managed - - -	389	Preventable Blindness. Conkey - - - - -	392
PHTHIRIASIS, WITH REPORT OF CASES OF PHTHIRIASIS PUBIS IN EYE-LASHES, EYE BROWS, AND HEAD. By P. N. K. Schwenk, M.D. - - - - -		Hysterical Votes - - - - -	389	Mammary Abscess, Suppurating Umbilicus, and Inflamed Fingers. Tarnier - - - - -	392
SOCIETY NOTES.		BOOK NOTICES.		Stimulation in Pulmonary Tuberculosis. Kilchen - - - - -	392
GYNECOLOGICAL AND OBSTETRICAL SOCI- ETY OF BALTIMORE		The Board of Medical Examiners of North Carolina. Picot - - - - -	389	Diabetic Coma. Canada Med. Record - - -	392
The Technique of the Cesarean Sec- tion, Described in a Series of Steps, from the Selection of the Case Down to the After-treatment. Kelley - - - - -		Overdose of Croton Oil. Sangree - - - - -	389	Water for Babies. Med. Mirror - - - - -	393
THE POLYCLINIC.		THE MEDICAL DIGEST.		A New Treatment for Cancer. Granville - -	393
PHILADELPHIA HOSPITAL:		A Poet's Last Songs. Carpenter - - - - -	390	The Effect of Tobacco Smoke on Meat. Bourrier - - - - -	393
Removal of Sutures. Ashton - - - - -		Practical Treatise on Electricity in Gynæ- cology. Grandin - - - - -	390	Deviations of the Nasal Septum. Sedziak -	393
To Control the Thirst Following Abdom- inal Section. Ashton - - - - -		Cosmetics. Paschkes - - - - -	390	Transmission of Acquired Characteristics. Shoemaker - - - - -	394
For Relieving the Acute Symptoms of Peritonitis. Ashton - - - - -		The Physical Diagnosis of the Diseases of the Heart and Lungs and Thoracic Aneur- ism. Cammann - - - - -	390	The Brown-Séquard Treatment. Med. Press -	394
The Most Common Forms of Leucorrhœa. Ashton - - - - -		Medical Symbolism. Sozinsky - - - - -	390	Pathogenesis of Rectal Fistula. Wylie - - -	394
Prolapse of Rectum. Deaver - - - - -		Modern Antipyretics and their Action. Ott -	390	Statistics and Treatment of Diphtheria. Bokai - - - - -	394
Stone in the Bladder. Deaver - - - - -		Diseases of Personality. Ribot - - - - -	390	Twenty Cases Treated by Tuberculin. Mac- kenzie - - - - -	395
A Case of Facial Erysipelas. Vansant - -				Hygienic Measures in the Treatment of Ca- tarrhal Affections of the Upper Air pass- ages. Bosworth - - - - -	396
EDITORIALS.				Early Symptoms of Pregnancy. Waldo - - -	396
ELECTRICITY IN GYNECOLOGY - - - - -				Rheumatic and Gouty Inflammation of the Joints. Lydston - - - - -	396
ANNOTATIONS.				Anstol in Diseases of the Eye. Wallace - -	396
Peptonates and Peptonized Milk - - - -				Gilbes Shurly Method of Hypodermic Med- ication and Chlorine Inhalation for Pthi- sis Pulmonalis. The Harper Hosp. Bull. -	397
				Phagocytosis in Dental Lesions. Sage - - -	398
				Tuberculin. Woodbury - - - - -	398
				MEDICAL NEWS AND MISCELLANY.	398
				ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - -	398
				NOTES AND ITEMS - - - - -	iv, xii

Clinical Lecture.

VAGINITIS.¹

By E. E. MONTGOMERY, A.M., M.D.,
Professor of Gynecology in the Medico-Chirurgical College; Visiting
Obstetrician to Philadelphia Hospital, etc.

GENTLEMEN: The patient I bring before you this morning is a colored woman, aged thirty-five years. Her mother died of phthisis. She began to menstruate at sixteen years, regular and free; has had four children; no miscarriages, and no venereal history. About ten days ago she menstruated and complained of a great deal of pain; was very weak, and could not stand; pain over the abdomen; appetite poor; slight vaginal discharge; temperature, about 103° F. Abdomen was distended, but the tenderness was not increased by deep, steady pressure. The discharge from the vagina was of a purulent character, and the vaginal mucous membrane presented a marked inflammatory appearance. As I separate the parts to-day, they do not present as angry and red an appearance as they did a few days ago; but, if you look at this vagina and labia, you notice a slightly mottled appearance, due to the inflammatory condition that has existed in the vaginal mucous membrane. You can see the outlines of inflammatory surfaces—the vulva is pale, but inside it becomes reddened. Examining the vulva, there is a rolling-out of the posterior wall of the vagina. The perineum, instead of being an inch and one-half, as in health, is not more than one-half inch in thickness. From the symptoms I have shown you, you can understand that there has been an inflammation of the vaginal mucous membrane.

These inflammations are divided into the acute and chronic; into the specific and non-specific;

again, into the diphtheritic, simple catarrhal, follicular, and granular. Each is diagnosed according to the prominent symptoms presented. Ordinary inflammation of the vagina comes from several conditions.

The vaginal mucous membrane is not like that which we find in other mucous membranes of the body. It more nearly resembles the skin, for it is covered with pavement epithelium in place of columnar. When the vaginal mucous membrane is exposed to the air, it becomes dry and covered with scales resembling the surface of the skin. The vagina, in the normal condition, presents roughened rugæ or folds. In this case the mucous membrane becomes thickened; the folds smooth out; the epithelium comes off, and we have a smooth, glazed appearance, that feels like satin or velvet when brought in contact with the finger. In this case, the appearance has a marked scarlet, and was perfectly smooth to the finger, showing an absence of the normal ruga. This inflammation is more like a dermatitis than an inflammation involving mucous membrane.

The causation may be varied. It may result from the contact of a specific poison; chemical irritants, such as strong douches and injections; violent coition; parturition, or foreign bodies, such as pessaries; discharges from the uterus, or sinuses that lead to the vagina from pyosalpinx, suppurating, extra-uterine pregnancy, sacs, and so on. These various conditions and causes may provoke a vaginal inflammation of the mucous membrane. In this case, the enlargement of the vulva is the result of a laceration of the perineum received during one of her labors. By a digital examination, we find a hard cervix, and the body of the uterus is somewhat enlarged, slightly displaced, and quite flabby, indicating an inflammation of the first stage of sub involution in which the body can be readily moved backward and forward. It must have been retroverted or readily retroverted.

¹ Delivered in Philadelphia Hospital, October 29, 1890. Reported by W. Blair Stewart, M.D.

It, acting as a plug to the superior part of the vagina normally, owing to its weight, sagged down in the pelvis. There is not only a tendency to inflammatory trouble in the uterus, but in the tubes also, giving rise to tenderness, more or less tympanites, and threatens to become a severe pelvic inflammation, as shown by a glance at the temperature chart.

We may have it as a non-specific condition, and, in many cases, it is difficult to determine this fact—the microscope is the only means of positive diagnosis, as it shows the bacillus or gonococcus. The fact that the condition is contagious is not a positive indication of its specific character, for we may have urethritis in the male coming from contact with a vaginal or uterine discharge. That the condition in this woman is not specific, is evident from the fact that the inflammation has subsided so quickly under cleanliness. If this had been specific, we could not expect so much improvement within forty eight hours of treatment. Cleanliness was the only treatment followed in this case, and, even under such treatment, it has disappeared markedly.

In every inflammation of the vagina we find an exudation or transudation of serum, and a desquamation of epithelium. After this is kept up for a time, there is decomposition, that gives rise to ulceration or inflammation with a discharge that varies from a milky to a purulent or greenish color. Vaginitis rarely finds its origin in the vagina, for the pavement epithelium is so close that the coccus cannot find a place to develop, and for this reason it begins, in many cases, in the cervix, where the bacilli can enter better. It then extends to the vagina. Only where the vagina has been previously inflamed can it enter the vagina primarily. But it does not stop here, for the inflammation extends through the cervix and uterus to the tubes. Inflammatory trouble in the tubes is not necessarily specific, for there are many cases where such inflammation has arisen without the least possibility of specific contagion, hence it would be unjust to condemn every case of salpingitis as specific. The patient may be exposed to cold during menstruation, and an inflammation result in the uterus and spread to the tubes.

This patient suffers from an increased secretion; thickening of the mucous membrane that occludes the opening for its escape, and the consequence is that it passes through the abdominal end of the tube, causes inflammation, adhesions, and peritonitis. Again, in a case of this kind with inflammatory trouble, exposure will increase the trouble and may cause an attack after recovery, until the patient, who has suffered slightly at first, may ultimately have closing up of the abdominal end of the tube, formation of a sac in the tube, and give rise to a hydro-salpinx. If this becomes infected with the pyogenic germs, it becomes purulent, and it is a pyo-salpinx. In some cases the vessels become varicose, enlarged, and may rupture, giving rise to discharge of blood, causing hæmato salpinx, and to trouble of a purulent character. These, then, are some of the sequelæ of disease that begins in the cervix and vagina.

In this patient I have shown that I have no reason to believe that her trouble is specific, nor that she has ever suffered from any specific taint. I have seen numbers of cases—women who were unmarried—in whom there was not the slightest possibility of taint, in which there was a limited peritonitis at each menstruation, indicating that, from increased secretion of mucus in the tubes, it could only escape into the peritoneum, causing inflammation or catarrh, just as the discharge from the nose during coryza

causes a "scalded" condition of the upper lip. Such is the case in the peritoneal end of the tube. These are the cases that are liable to develop extra-uterine pregnancy, on account of the denuded condition of the tube. We have a surface where the plasma is thrown out; the ovum becomes lodged and forms a tubal pregnancy, or it is not impossible for the ovum to become impregnated and attach itself to the peritoneum, causing abdominal pregnancy. It is evident from the fact that, in a case where the uterus had been removed by the supra-vaginal operation, the patient subsequently became pregnant in the abdominal cavity, and its rupture caused the death of the individual. Abdominal pregnancy is not as frequent as tubal pregnancy. With all these complications in mind, the question of prompt and efficient means of treatment comes up.

TREATMENT.

In ordinary cases simple cleanliness is all that is necessary. Simply washing out the vagina with water or solution of boric acid will relieve, as in this case. Inflammation, in many cases, is kept up by a retention of the discharge, and where frequent irrigation is resorted to this is sufficient to relieve. In more severe cases, where ulceration has taken place, it is necessary to resort to more extreme measures. In many of these cases a good plan of procedure is to irrigate the vagina with large quantities of antiseptic or astringent solutions. In irrigation it is important to avoid the use of a syringe that will exert any force. The ordinary Davidson syringe throws in the fluid with too much force, and is liable to enter the uterus and increase the trouble. An ordinary fountain syringe, held three feet above the patient, is best. It is better for the patient not to lie on the back, because this retains the fluid, and, as it is important that the flow should be free, and to prevent it entering the uterus, it is better to be in the sitting position, and irrigation used as directed. Use two quarts of the fluid at least—more is better. Carry the nozzle up just below the uterus and move it about.

Where the vaginal orifice is small, making pressure against its side favors the return flow of fluid. For the purpose of irrigation, the sublimate solutions are the best, as they disinfect. Use a solution of 1-4,000 of the acid sublimate, as it is preferable to any other on account of the fact that it does not form the albuminate of mercury. In many cases after the use of the bichloride, the discharge is decidedly better. Sulphate of zinc, gr. xl to lx to a quart of water. May use acetate of lead, gallic acid or extract, hydrastis distil., which is, of course, dependent on its tannic acid. These injections do not cleanse thoroughly, and it is important that these be supplemented by placing the patient in the Simm's position, introducing the Simm's speculum, and cleansing the parts with mops of dry cotton. Dry the mucous membrane, and then paint with a 2 per cent. solution of nitrate of silver and astringents, bringing in contact with the mucous membrane; or, maybe it would be more effectual to spray nitrate of silver, 1 grain to the ounce, as an application. By the Simm's speculum this can be done nicely.

When the mucous membrane is ulcerated or markedly inflamed, it is important to introduce tampons of an absorbing character, to keep the walls of the vagina open; and for this purpose take the iodoform gauze, as it is less irritating than the sublimate gauze. Pack the gauze lightly in the vagina, this keeps the membranes apart. This application should be changed once in twenty-four hours, and

should be made by the physician and not the nurse or patient. The patient may wear a tampon medicated with some agent. Under this plan of procedure all inflammations readily yield.

In cases of follicular vaginitis there is so much inflammation of the follicles that the outer layer of epithelium is cast off, leaving the enlarged papilla. In such a case it may be necessary to apply the thermo-cautery to destroy the papillary surface before the condition can be relieved. In inflammation of the vagina in persons of intemperate habits, the granular condition will often remain, in spite of all treatment, until they mend their habits. After the climactic there is a form of senile vaginitis that is very obstinate, and liable to recur under every improper habit. Correct methods of eating, drinking, etc., must be insisted on. Simply removing all stimulants will often cause a subsidence of a vaginal inflammation under the mildest measures. Gouty and plethoric persons often have this affection, and it cannot be remedied until these conditions are relieved.

The early treatment of these troubles is important on account of the extension of the inflammation to the appendages. If the uterine end of the tube is patulous, the discharge comes into the uterus, is very irritating, and gives rise to attacks of vaginitis; and it is not rare to have them suffering with vaginitis and a periodical discharge of a purulent character. These may take place, also, at times, in displacements of the uterus with dilation; and, if this is the case, the periodical discharge irritates the vagina, causes relaxation and inflammation. In every case examine the condition of the uterus and appendages and the general health of the patient, so that you may know whether treatment should be local or applied to other organs in state of disease. In this connection let me emphasize the fact that you cannot drive a specialist from general medicine. As to the treatment of the sequela, it will be a subject for further consideration.

Original Articles.

PHTHEIRIASIS, WITH REPORT OF CASES OF PHTHEIRIASIS PUBIS IN EYELASHES, EYEBROWS AND HEAD.

By P. N. K. SCHWENK, M.D.,

Clinical Assistant to Eye and Ear Department of Pennsylvania Hospital and Assistant Surgeon to Will's Eye Hospital.

AMONG the varied relations of insects to other classes of the animal kingdom and their mutual relations, no subject is more interesting than is that of the human louse. Lice have existed since the time of man. In Exodus we read that "Aaron stretched out his hand and with his rod smote the dust of the earth, and it became lice in man." Ambrose Paré supposes that Herod, the King of Judea, died in some way or other from the effects of lice.

Some writers think lice the result of a specific dyscrasia, whereas the cause of pediculosis or phtheiri-asis is always to be found in the presence of the parasite. Contagion, direct or indirect, is the only possible source from which the disorder may be contracted, the spontaneous generation to the contrary. Phtheiri-asis is a term which implies both the presence of lice and the cutaneous lesions to which their presence gives rise.

Pediculi belong to the lowest order of insects, and belong to the group of hemiptera and family pedicu-

lidæ. Like all the insects they possess a head, thorax and abdomen; six actual legs attached to their thorax, the legs are five-jointed, covered with hair, and at their distal ends are provided with two opposing horny claws. They do not possess any wings, and do not undergo any metamorphosis.

On each side of the anterior portion or head are inserted two-five articulate processes termed "antennæ," which are supposed to be tubes containing nerve prolongations and tracheæ, and, therefore, associated with the special sense. There is little doubt but what they are organs of touch, of hearing, of smell and balancers, determining the direction of movement. Two shining and glittering crystal eyes are situated back of the antennal articulations. Lice are purely epizoid, and cannot exist without their host, man.

They are called *pediculi*, because they are more troublesome with their feet than their bite.

We recognize three varieties of lice, that infect the human body, and are named according to their habit, shape and locality:

1. *Pediculus capitis*, or "head-louse."
2. *Pediculus corporis*, or "body-louse."
3. *Pediculus pubis*, or "crab-louse."

The *pediculus capitis* is generally found upon the head, exceptionally upon the general surface. It is from 1 to 3 mm. in length, and of a grayish-white color. It has a head, thorax and abdomen, the latter of which has seven clearly defined notches or pseudo-segments; six five-jointed hairy legs, armed at their distal ends with two horny claws, coming off from thorax. The male is smaller than the female. They are found in the heads of the children, especially on children who are unclean and predisposed to cutaneous affections. More rarely they inhabit the heads of adults. They are called *pediculus capitis*, because of their preference to this part of the body.

2. *Pediculus corporis*, or "body-louse," so-called because of their living on the body, or more hairy parts. In structure it is very similar to the head-louse, about 1 to 4 mm. in length. The heads of the *pediculus capitis* and *pediculus corporis* are acorn in shape, flattened, a five-jointed antenna projecting from each side, back of which are the two crystal eyes. The neck or back part of the head is more restricted than the *pediculus pubis*.

3. *Pediculus pubis*, or "crab louse," is so-called because of its preference to the pubic region as its place of living, and because of its resemblance to a "crab fish." This variety is of the most roaming kind, and may be found in the hair of the pubis, breast, arm-pits, eye-lashes, eye-brows, beard,¹ and in aggravated cases *on the head*, especially is the case in children.

Perhaps the "crab-louse" is regarded with greater disgust than is bestowed upon any other living creature.

The *pediculus pubis*, or "crab-louse," is shield-shaped, flat, measures from 1 to 2 mm. in length, has a short head, thorax and abdomen; the thorax and abdomen blend into each other without any apparent or visible separation; has six legs similar in construction to other varieties, coming off from thorax, ending in the opposing strong horny claws; the first pair of legs are lighter than the second and third pair, which are thicker and stronger. The abdomen has seven indentations, and is armed at the sides with seven small teat-shaped prehensile feet, and each provided with from four to eight heavy hairs or bristles. This variety generally infects the pubic

¹ Tilbury Fox, p. 411.

region in adults, and are acquired in the act of intercourse, but may be obtained from places previously occupied by one having them.

Dr. McCall Anderson¹ observed it not uncommonly among the upper classes, who too frequently became affected from intercourse with females whose virtue is as loose as their habits are dirty.

The three varieties—*phthirius capitis*, *phthirius corporis* and *phthirius pubis*—vary considerably in their habits and place of abode. Thus the head-louse, although it feeds on the skin, dwells on the hair of the head, also deposits its nits (eggs) on the hair. This louse moves forwards, sideways and backwards with the greatest rapidity and grace. In its movement sideways it jumps from one hair to another as cutely as a squirrel leaps from one branch to another. Some writers have attempted to prove that the head-louse varies according to the races of men to which it is attached.

The *phthirius corporis*, or “body-louse,” also feeds on the skin, but it dwells in the clothing and deposits its nits (eggs) in the seams of the apparel, so as not to be wiped off or dislodged by its host in the act of dressing or undressing.

The *phthirius pubis*, or “crab-louse,” likewise feeds on the skin, but, unlike the other two varieties, it also dwells on the skin, but it deposits its nits (eggs) on the hair. Because of its flattened shape and possession of strong legs, fortified by strong claws, they are so adherent to the skin or root of the hair that it is with great difficulty that they can be dislodged or extracted.

It is, indeed, very curious that man should be the recipient of three varieties of parasites, each having its predilected field of labor and habitat. That these three species should live in such close proximity to one another, and do not, only in exceptional cases, where their primary field of infection becomes overcrowded, leave their own precincts for the purpose of encroaching on that of their neighbors. While I have seen war among their own species or variety, I have never seen any combatting between any of the different varieties. No explanation has as yet been given of this circumstance, and I do not intend to solve the difficulty beyond the fact that this would or could occur only in cases where their own quarters were to become overcrowded and where nourishment might grow scanty.

One can understand why one insect should prefer hairy and another non-hairy parts, but not why two pediculi so much alike in their habits should be so different as to their habitat; why the head-louse should find its appropriate soil in the head alone; why the crab-louse prefers the curly-hair spaces, but if these are not available will attack any part richly supplied with oily or sebaceous material, as eye lashes, eye-brows, beard and head; and why the cloth-louse prefers to live on the clothing and feeds on the body or non-hairy spaces.

The ova (“nits” or eggs) are much the same in the three varieties, being largest in the case of the head-louse and smallest in the crab-louse. They have an ovalish or pyriform shape, a yellowish-white color and, in the case of the head-louse and crab-louse, are glued to the hair, and in the case of the cloth-louse are laid and hatched in the clothing. The nits on the hair are so arranged that the head of the ova is in the direction of the top of the hair, and a hair may have from one to five ova in various stages of development. It has been shown that lice

are hatched at the end of five or six days. They can reproduce at the end of eighteen days. *Leuwenhoek*¹ has made the calculation that two females might become the grandmothers of ten thousand lice in eight weeks.

It has already been stated that the *pediculus pubis* has more of a roaming nature than the first two varieties. In persons that have not as yet any hair on pubis, as before puberty, the “crab-louse” finds the eye lashes a favorable and most nourishing place where to conjure its progeny. After this soil has been well monopolized and overcrowded by deposit of its eggs and yellowish excrement, which is always applied to the root of the hair and on the free skin, they emigrate to the eye-brows, and from there to the region of the temples or to the part of the head where the skin is soft and hair less developed.

The presence of lice in the eye-lashes, at least in this country, is an exceedingly rare affection. It is as irritable to the patient as it is unsightly to the physician. The *pediculus pubis* is the only louse affecting this region. I have not been able to discover any anatomical or morphological difference between the louse taken from the eye-lashes or head and the louse taken directly from the pubis. It does not follow that a person having them on the eye-lashes must also be infected in the pubic region. This louse could not exist in the cilia if it did not reside in the skin and roots of the hair. They fasten themselves to the skin at the roots of the cilia in such a way as to make it almost impossible to see them or to extricate them, and their presence would go undetected if it were not for the irritation produced and the presence of a powdered appearance. The roots of the cilia are clogged with a yellowish-gray and brown crust, the excrement of the louse. By careful scrutiny of these supposed crusts the movements of the insects may be detected. The brownish excoria of the little pests dries and scales off, and leaves the raw cilia borders exposed, showing the wounds that have been inflicted by the hungry and irritable parasite. The cilia are covered with from one to five ova.

The ova or nits are small pear-shaped, yellowish-brown bodies, from $\frac{1}{4}$ to $\frac{1}{2}$ line in length, glued by their narrow ends to the shaft of the hair by a semi-transparent cement; the broad end of the egg has a lip, to which is attached a conical lid, studded with little nodular processes; this falls off when the foetus is fully destroyed; the egg is lined throughout by a membrane (chorion) which contains the young pediculus. The outer covering of the ova consists of transparent hexagonal cells united at their edges by a thick dense fibrinous band, thus dividing the contents into alveoli; these alveoli are filled with a mass of apparently emulsified fat floating in a transparent medium or menstruum. The head is separated from the body by a constricting blackish band; the neck presents eight polygonal cells filled with a non-cellular semi-transparent fluid. Minute cilia or hair project from the cellular layer of the ova shell.

It is generally supposed by the laity that lice possess jaws and bite freely, and certain of the wounds seen in the skin are regarded as having been produced by the bites of the pediculus. This is all a mistake. Professor Schiödte² has clearly demonstrated that the pediculus is furnished with a sucking apparatus, labium or haustelleum capable of being retracted into the upper part of the head. This lip or proboscis is

¹ Dühring, page 617.

² Lancet, Feb. '70, p. 154.

first inserted into a sweat pore or sebaceous gland and is then protruded. By means of the claws at the end of the legs they hold on to the parts around the point of attack, and their two pairs of *setæ* are next protruded and applied together so as to form a tube. When a louse is sucking soon a red speck is seen at the top of its head which exhibits dilatation and contraction, and this red coloration is traced presently into, and along the œsophagus and the intestines, which later are seen to be in lively peristaltic action. The effect of the attack of the pediculus is to cause a little escape of blood into the follicle, and it appears as a minute, and at first bright red speck, the size of a couple of pin points, not *raised*; not *itchy*, and not removable by pressure; occasionally some swelling takes place, but this quietly subsides. The lesion differs altogether from a serrated follicle; and I regard it as quite characteristic of the attack of the pediculus, generally.

Therefore, we conclude, the phthirius, prefers uncleanly and ill nourished surfaces, injures the skin by projecting their haustellum into the follicles and drawing away blood, leaving behind a minute hemorrhage, which sets up irritation which gives rise to the scratching practised to relieve the same, and we have as a consequence urticaria, eczema and many other apparent skin affections. These latter are always the common results of scratching under varied circumstances. The production of normal hemorrhagic specks, not the results of any alteration in pre-existing papules or excoriations, and not depending upon scratching, is the essential and peculiar effect of the attack of pediculi; the hemorrhagic speck is therefore the pathognomonic sign or symptom of the presence of the phthirius.

Society Notes.

GYNECOLOGICAL AND OBSTETRICAL SOCIETY, OF BALTIMORE.

March Meeting.

The President, DR. HENRY M. WILSON, in the Chair.

DR. HOWARD A. KELLEY read a paper upon

THE TECHNIQUE OF THE CÆSAREAN SECTION, DESCRIBED IN A SERIES OF STEPS, FROM THE SELECTION OF THE CASE DOWN TO THE AFTER-TREATMENT.

The relative and absolute indications were described. The Porro operation was rejected, excepting under special, peculiar circumstances. For example: When there was good reason to suspect septic infection, as after prolonged efforts at delivery, at turning, or the use of the forceps, also in cases of large tumors, occupying the body of the uterus, or in some cases of cancer, or in uncontrollable hemorrhage from the placental site. Thus limited, the conservative operation and the Porro operation are mutually exclusive, not occupying the same field.

It is a serious surgical error to mutilate a woman by performing the Porro operation where special indications do not exist.

The mortality of the Porro operation is fully as great, and probably greater, than that of the conservative.

In a healthy case, free from sepsis, with unruptured membranes, it is not necessary to deliver the uterus from the abdomen before incising it and deliv-

ering the child. It is rarely necessary to use any constricting ligature around the cervical end of the uterus. Excessive hemorrhage from the placental site or the margin of the wound can very well be temporarily controlled by constricting the cervix with the hands of an assistant.

The uterine suture consists of deep sutures, embracing the peritoneum and muscularis, but not the decidua. About ten such sutures are needed. Between each of these deep sutures half-deep sutures can be passed, securing perfect coaptation of the peritoneal surfaces. The sero-serus sutures are not necessary in cases free from any suspicion of infection. In such clean cases the uterus is dropped back into the abdomen and covered with the omentum. If there exists a slight suspicion, it is of advantage to draw the omentum down behind the uterus, thus favoring the discharge of any septic material through the lower angle of the wound.

Drainage of the pelvic cavity cannot be efficiently carried out. The abdominal wound must be concealed by a dressing made of snowy cotton dissolved in alcohol and ether, containing 1 part bichloride to 16,000. A little strip of gauze is laid over the wound, saturated with this solution. This adheres until it is time to take sutures out, concealing the wound, and preventing contamination from the outside much better than many layers of gauze and cotton. The baby should be allowed to nurse as soon as the mother has thoroughly recovered from the anæsthetic.

The vagina should not be douched out as a matter of routine. The vaginal outlet should be secured from the introduction of sepsis from without by separating the labia and throwing into the vulvar orifice a drachm of powdered iodoform and boric acid (1 to 7). A cotton pad, loosely applied to the vulvus, should be changed as often as soiled by the discharges.

The patient thus passes through a perfectly normal puerperium.

DR. CHAS. P. NOBLE: In the technique of the operation laid down by Dr. Kelley, reference has been made to typical cases. In such cases I agree entirely with what he has said. But all cases are not typical. I will report an unique case upon which I did the Cæsarean section recently.

Dr. Kelley had operated in a previous pregnancy. As a result of the first operation there remained a fistula, opening from the uterine cavity through the abdominal wall. Notwithstanding this fistula, she became pregnant, and for several weeks the amniotic bag protruded into the opening, so that there was nothing between the foetus and the outer world but the thin amniotic sac.

This sac ruptured at the thirty-third week. The woman had a generally contracted pelvis, besides having a large mass of secreted tissue behind the cervix, left from her previous Cæsarean labor. Had spontaneous labor been possible, the foetus would have escaped through the fistula, and not per vaginam. In view of the conditions, I thought Cæsarean section preferable to delivering the mutilated foetus *per vias naturales*.

The finger was inserted into the uterus through the fistula, and, with this as a guide, the incision was made through the region of utero-abdominal.

Sufficient room not being afforded for delivery, the peritoneal cavity was opened and the uterine incision lengthened. The living foetus was then delivered. The placenta and membranes were firmly adherent, and were slowly peeled off. To control bleeding dur-

ing this time, it was necessary to insert the uterus through the abdominal incision, to enable the assistant to grasp the lower segment.

The patient passed through a perfectly normal puerperium, and is now quite well and soundly healed.

This case is entirely unique in its conditions and in the technique of the operation.

Three cases of Cæsarean section have been observed by me, all having made good recoveries. When the operation is done at the proper time, and after the method described by Dr. Kelley, I am sure this result will be quite uniform.

The essentials of success are :

1. Operation at the proper time—before labor or at the beginning of labor.
2. Rapidity in operating.
3. Accurate suturing.
4. Asepsis.

With reference to suturing, I believe that the Lembert suture, as ordinarily described, is purely theoretical. The peritoneum will not hold a suture. Operators have unconsciously included the deeper tissues in the so called Lembert suture.

An important point, not generally recognized in this country, is, that the diagnosis should be made in the last weeks of pregnancy, and, under ordinary circumstances, the operation be decided upon and done at the close of pregnancy, before labor sets in, or immediately thereafter. I would not do the modern Cæsarean section in a case which had been tampered with by efforts to deliver with the forceps or by version; but in such cases would prefer the operation. In Philadelphia, in the last four years, twelve Cæsarean sections have been done, and ten mothers have recovered. One that died had pneumonia at the time of the operation. The other case was one in which the surgeon at the same time removed a fibroid tumor.

DR. B. B. BROWNE: I think all the procedures recommended are in the main correct, and are in accordance with the rules and suggestions laid down five or six years ago by Garrigues, Sænger and Leopold; these should be carried out in ideal cases, but unfortunately we meet with many complications which must be dealt with as they occur.

Having recently performed the operation myself, and looked up the literature and technique of the subject, I was surprised to find that we can to day make but little improvement or change for the better.

In 1886 Sænger had operated four times, saving all the women and children. Dr. Leopold had operated nine times and lost one woman, saving all the children.

DR. T. A. ASHBY: I wish to congratulate Dr. Kelley on his brilliant success with the Cæsarean section. This success is convincing proof of what can be done when the section is instituted under proper conditions and at a proper time.

The future of the operation rests upon a proper and judicious selection of the case, and upon an immediate resort to the section before other methods of delivery have been attempted and abandoned. I doubt whether the Cæsarean section under such conditions will give a higher mortality than the ovariectomy of ten or fifteen years ago.

The technique of the section is simple enough, and certainly its mechanical execution is not as difficult as that necessitated in the removal of many conditions of tubal and ovarian disease.

Hæmorrhage is not large, and it is easily controlled. Septic processes should not follow if strict aseptic precautions are observed.

The progress of the section as a substitute for other methods of delivery, rests upon an early and clear recognition of the pelvic measurements and a prompt acceptance of this method as the proper procedure in the given case. When this is done the success of the section is not compromised by unfortunate interferences in other directions. When we have obtained the statistics of this class of cases, we are in a position to compare the mortality of the section with other operative methods.

DR. W. P. CHUNN: I did not hear the first part of the history of the case, but think I would have removed the ovaries or tied the fallopian tubes to prevent future conception.

It is hard to say just what operation should be done.

DR. NOBLE: In doing a Cæsarean section I would not touch the ovaries and tubes as Dr. Chunn speaks of doing, but would do nothing to prolong the operation. Tying of the tubes would probably cause salpingitis. This objection is purely theoretical. So far as I know, this has been done only twice—once in England, and once in America.

DR. BRINTON: I have been for some years interested in measuring the pelves of women. Very often we go to labor cases without knowing anything about the condition of the pelvis.

With the hospital surgeon who has the best facilities the Cæsarean operation will undoubtedly be the best in cases of extreme pelvic contraction. But with the average practitioner, what is best? I think that with these physicians that craniotomy will hold the place.

In speaking of craniotomy "holding its place," I referred to those cases of pelvic contraction where the child could be extracted without harm to the mother, say from one and three-fourths to three inches.

DR. T. A. ASHBY: I must offer an apology for presenting a series of experiences which are familiar to all who have done much intra-abdominal work.

I have brought these charred remnants of tubal and ovarian inflammation before the society to invite discussion, not to exhibit anything original. They represent nearly every phase of intra-pelvic inflammation, and illustrate the various degenerative conditions which are found in the pelvis after an inflammatory fire has passed over these tissues.

Of the nine specimens here presented, removed from the same number of cases, no two are alike.

In one case the tube has received the brunt of the attack, in another the ovary is involved in abscess cavities, whilst in a third both tube and ovary are tied up in a knot by adhesive inflammation, and so on through the series.

The clinical histories of these cases would be exceedingly interesting did time admit of a recital, but I shall not tax your patience with details.

We have the same old story in all of these cases, save two—one the large specimen of a tubal sac of uncertain origin, probably an interrupted tubal pregnancy of long standing, and the other the remnants of a catarrhal salpingitis and ovaritis with intra-pelvic adhesions. Of the other seven specimens the origin of the condition is of chief interest in this connection, since they explain to my mind the essential factor in the production of the specimen here presented. Each of these women have borne one or more children; in each case the history of the intra-pelvic trouble dates from the last lying-in period, which was accompanied with mild or severe symptoms of child-bed fever. In each of these women there was an old lacerated cervix, in some more pronounced than in others. The histories of these cases, as far as they can be made out,

and can be interpreted, tell the simple story. During labor a cervical tear occurred; in this wound septic material gained a lodgment; a septic process was established which extended from the cervix to the cavity, from the cavity to the tubes and from the tubes to the intra-pelvic peritoneum. The severity of the symptoms in each case must have borne some relation to the septic process and to the tissues involved, though no way is offered for verifying this statement. We simply find the results in general destruction of the tube, or ovary, or of both, and the inference is that drainage was secured and pus escaped, leaving no remnants of this character behind, except in two of the specimens in which I found pus cavities in the ovary containing each a drachm or more of pus.

These cases illustrate the fearful havoc which a septic process following parturition may occasion among the pelvic organs. A little fire kindleth a mighty conflagration is literally true in more respects than one. In an experience with other cases I have observed this septic process in its very beginning when limited to the cervix and cavity, and I have seen the lying-in woman's temperature fall from 103° to normal within twelve hours after thorough cleaning and disinfection of the cervix and cavity in these cases, and a complete arrest of the process before the tubes were involved. In another case I have seen tubal and general pelvic peritonitis in active force following immediately the infection in the cervix and cavity. This experience convinces me, despite all other theoretical teachings, that we have in the lying-in state an explanation of those intra-pelvic diseases which render the lives of so many women useless, and oftentimes utterly miserable. Now, is it necessary that the lying-in period should be surrounded with extra hazard, high temperature, and severe pain? A septic endometritis following parturition may run a very mild and low grade course, and still result in sub-involution, salpingitis, pelvic adhesions, and other intra-pelvic conditions which impair the normal function of these organs.

The lesson clearly taught by such experience is that aseptic conditions should be enforced in every case of labor, that the least suspicion of sepsis should lead to immediate investigation of the uterine cervix and cavity with a view to thorough cleaning and arrest of the septic process. If this be done, as I have done it in a number of cases, even with medical friends in consultation, we can cut short a sepsis and arrest a condition which will surely extend to the tubes and pelvic peritoneum in the absence of prompt attention.

DR. B. B. BROWNE: The fact that laceration of the cervix is so frequently found in married women suffering from tubal disease is, I think, because the purulent discharge from the uterus passing over the torn surfaces prevents their union, while the septic material also extends to the tubes; when there is no septic material in the uterus the lacerated surfaces readily unite, and the tubes are not affected.

DR. J. WHITRIDGE WILLIAMS: The specimens exhibited represent a class of cases that are very common, and which will become more so as we become more expert in bimanual examination. Indeed, to a skilful palpator, it almost seems that the majority of women examined have more or less tubal or ovarian disease. The specimens are particularly interesting to me, because I have studied carefully the pathology of a large number of similar cases.

The etiology in many cases is doubtful, but most observers appear to cling to Noegerrath's theory of latent gonorrhœa. Examination of the pus in cases of pyosalpinx brings forward most interesting facts.

For in most cases it is impossible to discover any species of bacteria, either under the microscope or by culture methods, which shows that the bacteria which caused the trouble have long since died, for closed pus cavities are not particularly favorable for the growth of organisms. In two cases we found undoubted gonococci, and in a case following an imperfect abortion the streptococcus, and in another case the staphylococcus aureus.

Clinically the cases due to the pus organisms are much more acute and virulent than those due to the gonococcus. These results correspond with those of Zweifel, of Leipzig, who has just published his observations. He also found the gono- and streptococcus, but not the staphylococcus. In one of his streptococcus cases the subject was an undoubted virgin, and he accounted for the infection by an abscess following an attack of typhoid fever some years before.

DR. ASHBY speaks of the relation of lacerated cervix to salpingitis, etc. I cannot consider it a factor in the production of the disease and regard it merely as a coincidence. If it were a potent factor in producing the trouble we should find salpingitis and pelvic adhesions far more frequently than we do now, for we must remember that in most women there is more or less laceration of the cervix during labor. Moreover, this cause is certainly inapplicable to the frequent cases occurring in nulliparous women, and especially in virgins.

A close study of the clinical history of a number of cases inclines me to believe that the majority of cases follow infection during labor, or after an incomplete abortion; for, in many cases, it is impossible to obtain even a history of leucorrhœa before the labor, which would apparently exclude gonorrhœal infection.

By infection during childbirth, I do not necessarily mean the cases in which we have well marked puerperal fever, but the milder degrees of infection as well, for most of the cases of so called milk fever are due to infection, and may give rise to serious results.

Zweifel, on the contrary, who has just published a remarkable series, seventy-nine salpingo-oophorectomies, with only one death, believes in the gonorrhœal origin of most cases. Sænger traces most of the cases in virgins back to a gonorrhœal salpingitis during childhood, which has persisted and ultimately affected the fallopian tubes. While I do not feel justified in subscribing to this view, I can say that it is quite probable. For lately I have seen a number of cases of undoubted gonorrhœa in little girls of from two to seven years of age, in which there was no suspicion of criminal action.

In eight cases of vaginitis in little girls which I have examined, I found gonococci in six of them. In several the mode of infection was quite clear. In one case the husband acknowledged an attack of gonorrhœa with which he infected his wife during her pregnancy, and each of the children born after it had ophthalmic neonatorum, followed when they were older by gonorrhœal vaginitis. In another case, an older brother had gonorrhœa, and his two little sisters used his towels for bathing.

These remarks will show that the vaginitis of little children is not of strumous origin, as generally supposed, and that it demands a more active treatment than is generally employed, especially when we consider its possible consequences.

DR. BRINTON: I can corroborate the views of Dr. Williams in regard to the specific origin of the cases of vaginitis in children. Having recently treated; first, the father with gonorrhœa; later, the mother; and within a fortnight from the time the father con-

sulted me, was called to see the little daughter, aged four, with a severe "vaginitis," which yielded to the usual treatment in about the usual time. My experience has been that if a child is found with a "vaginitis," close investigation will prove that some older member of the family has either a "urethral" or "vaginal" discharge.

DR. NOBLE: Dr. Ashby has brought up so many points that it is difficult to know just what to take up. It is now the fashion to call all unilateral collections of blood, extra-uterine pregnancies; but I have recently had a case that proved not to be a pregnancy. With reference to the uterine hemorrhage coming from the tubes, we do know as a fact that it is possible for blood to come from the tubes. This was common to all in the days when the stump was treated by the extra peritoneal method, in doing ovariectomy. I am quite sure that gonorrhœa has been the cause of most of the cases of pyosalpinx that I have seen, and I think that the cause of salpingitis in young women is often from simple infection. Many cases of dysmenorrhœa in young women are due to salpingitis. In such cases it is unnecessary to question their chastity. I agree with all the speakers in reference to the relation of lacerated cervix to salpingitis.

Where there is a laceration there is frequently an endometritis, and there is no reason to think that it may not follow out into the tube. I believe firmly in the great value of the drainage tube, and use it in almost every case. Where properly cared for it is practically free from objection, while being of most positive advantage in allowing the escape of serum and blood.

DR. H. P. C. WILSON: I did an exploratory laparotomy for a fibro-cystic tumor. In manipulation I found great tendency to bleeding, and as I could not get at the ovaries, nor remove the tumor without causing death, I closed the abdomen. She got on well for fourteen hours, when she became very feeble, heart and respiration very weak. She was put upon digitalis and muriate of quinine and urea, but it did no good. The heart became so weak that the pulse could not be felt. I then began with five minims of tincture of strophanthus every three hours, and ether, mxx , hypodermically every three hours. The pulse became stronger, 125 to the minute, and she felt better. The next day she became unconscious; pupils dilated; face flushed; pulse, 120; temperature normal. The medicine was withdrawn, but she remained in this condition about twenty four hours. To-day she is better; consciousness returning; pupils contracting. I have had no experience with the poisonous effects of strophanthus.

WILLIAM S. GARDNER, M.D., *Secretary.*

712 N. HOWARD STREET.

The Polyclinic.

PHILADELPHIA HOSPITAL.

IN removing sutures cut as close as possible to the skin, so that on drawing them through no foreign matter may be lodged in their track.—*Ashton.*

An enema of warm water, 43 to 63, will control the first following abdominal section.—*Ashton.*

In cases of peritonitis, where it is not advisable to operate, administration of sulphate of magnesia for twenty-four or forty-eight hours often causes the acute symptoms to pass off.—*Ashton.*

The most common forms of leucorrhœa are the simple specific. The simple form is rare; most of the cases being specific, constituting gonorrhœa. The discharge in these cases is more or less purulent, greenish or yellowish. The vulvar orifice and meatus urinarius are also generally involved. The specific nature of the trouble is determined by the severity of the symptoms, the involvement of the vagina and urethra, and pus in the urethra. The diagnosis is confirmed by the finding of the gonococcus.

Treatment.—At once render discharges non specific by corrosive sublimate, 1-2,000; inject thoroughly every day, for three or four days, into vagina, and wash the external genital organs. Continued use of corrosive sublimate being irritating, after three or four days substitute for it solution of chlorate of potassium, two tablespoonfuls to a quart of warm water, injected night and morning. Where uterine involvement is suspected from the nature of the discharges, apply pure iodine, or pure carbolic acid, or corrosive sublimate solution to its cavity. Do not inject these substances, but use an applicator. For the pain caused by the irritation of the external organs place borated cotton between the lips of the vulva. If urethritis arise, patient will suffer pain during urination. Therefore, keep the urine alkaline; give also sandal wood oil internally, 4 minims three times daily in capsule. If the irritation still continues, apply pure carbolic acid or solution of hydrastis directly to the urethra, dilating and using urethral speculum.—*Ashton.*

Dr. Deaver presented a case of prolapse of rectum. Internal hemorrhoids, he said, behave very much like prolapse of the rectum, making their appearance on defæcation, and disappearing after defæcation. For differentiation we have the following points: In hemorrhoids the bleeding is more profuse; the debility is more pronounced; the pain on defæcation is much more decided than in prolapse. On inspection the diagnosis is clear; prolapse, complete or incomplete, is uniform, involving the whole circumference of the bowel; whereas the hemorrhoidal protrusion is only a portion of the circumference of the bowel.

Treatment.—Anæsthetize protrusion with cocaine. Apply nitric acid at two or three points in the circumference of the bowel, not over the entire surface. The nitric acid excites inflammation, ulceration and sloughing, leaving a healthy granulating surface, which ungoing contraction, will narrow the circumference of the bowel and affect a cure. This gives the same result as the surgeon's knife in dissecting off a strip of mucous membrane on each side, and is attended with no loss of blood, less discomfort to the patient, and is less liable to be followed by too great contraction of the bowel. After application of the acid, cotton saturated with sweet oil was placed in the rectum and compress bandage applied.

Whereas the symptoms of stone in the bladder are pretty well pronounced, yet they may be so closely simulated by the presence of a stricture of the urethra, that an opinion should not be given until the urethra has been examined, and the examination of the bladder should be secondary to the examination of the urethra.

Do not pass a bougie into the bladder when the stricture is at or above the bulbo-membranous junction, as its repeated passage over the prostate is bound to irritate that gland, and it is not necessary, any more than it is necessary to pass a bougie through a healthy urethra.—*Deaver.*

In a case of facial erysipelas, extending over the scalp and back of neck, with infection of the kidneys,

causing an acute attack of Bright's disease, Dr. Van-sant used locally an ointment of ichthyol and petrolatum in equal parts, the scalp having been thoroughly cleansed. Internally he used at first large doses of iron and quinine. After the disappearance of the erysipelas, the blood and albumen continuing in the urine, although in diminished quantities, the patient was put upon drop doses of tincture of cantharides, three times daily, and did extremely well. Of course, the acute condition had somewhat gone down before cantharides were used.

MENTHOL APPLIED LOCALLY TO THE LARYNX.—Regarding the action of menthol specially, when thus employed, I think we may consider it to be of a triple character. It is, first, a local anæsthetic. On account of this property, we have relief from cough, and that in a way greatly to be preferred to the older fashion of administration of opiates by the stomach, with their consequent deleterious effects on alimentation. Secondly, administered internally, it is a powerful, though comparatively harmless stimulant. Thirdly, it is an antiseptic, and being of a highly volatile character, it is readily diffused throughout the whole lung. By its use in this fashion, we have an antiseptic brought as closely into contact with the affected surface as it is possible; certainly much more completely than is the case when inhalers are employed. The active ingredient used with an inhaler is to a very large extent absorbed on its way to the lungs, by the moisture on the surface of the tongue, cheeks, fauces, pharynx, etc. Here we place the antiseptic—menthol rendered more powerful by the addition of creasote or guaiacol—within the trachea, from which it readily enters the larger bronchi, and all air inspired, passing over this, becomes laden with the antiseptic, and is carried onward to the finer ramifications of the bronchi. The active ingredients thus introduced slowly volatilize, and their odor, especially when creasote is present, may readily be detected in the breath, eight or ten hours after introduction. The oil, I suppose, is partially absorbed, but in greatest quantity is, by the cilia of the epithelium, driven upwards through the bronchi and trachea along with the mucous secretion towards the larynx, from which it readily enters the gullet. By this form of treatment the majority of the patients whom I have seen treated have had their sufferings alleviated, and a goodly proportion have not only been markedly relieved, but restored to apparent health.

—Downie, *Brit. Med. Jour.*

SOME THINGS THAT I HAVE LEARNED.—In the first place I wish to say that the things which I have not yet learned, if compiled, would make a very large book. I believe it was Mark Twain who said that about two-thirds of what one positively knows is not so. Therefore, I warn you not to be misled by any thing I may think I have learned, as expressed in this paper.

I have learned to say, "No, I will not go without my pay in advance," when a known "dead-beat" requests my services. It took me several years to work up to this point, but I finally got there.

I have learned that a kind and sympathetic manner, combined with *firmness*—and I wish to emphasize the firmness—is of great value in holding the confidence and good will of the patient.

I have learned that Filix mas and kalmeema made into an emulsion with gum tragacanth—a drachm of each to the ounce—is a surer and pleasanter remedy for tapeworm than is promegranate bark.

I have learned that tr. of phytolacca is the best local application in erysipelatous inflammation. Try it, and you will be astonished at your success.

I have learned that compound stillingia liniment, given internally in 15 to 20 drops doses, until relaxation or emesis is produced, will always relieve spasmodic croup.

I have learned that the small dose of bichromate of potash relieves hoarseness when arising from thickening of mucous membrane; also that it is a fine remedy in diphtheria. I add enough of the first decimal trituration to a half glass of water to color it slightly, and give a teaspoonful every hour.

I have learned that Marchand's peroxide of hydrogen is a fine local application in diphtheria, catarrhal inflammations in any part of the body, bruises, suppurations of every description where there is a chance for the escape of gas, and, combined with glycerine, is an excellent remedy for chapped hands.

I have learned that the best way to prevent supuration of the breasts, is to prevent sore or fissured nipples. I never saw the breasts suppurate when the nipples were sound. The best application for inflamed mamma is a cold compress of a solution of acetate of lead; internally phytolacca is the remedy.

I have learned that quinine and whisky will induce palpitation and heart failure in about twenty per cent. of the patients to whom either is continuously administered, in this altitude.

I have learned that cactus and nux vomica are the best remedies with which to combat the above condition when found.

I have learned that the proper *antiseptic* is the most important remedy in treating zymotic diseases.

I have learned that nothing irritating should be sprayed into the nasal cavities if you wish to cure a catarrhal condition of the same.

I have learned that thorough cauterization is the best way to cause contraction of tissue in hypertrophic rhinitis.

I have learned that a 2 per cent. solution of muriate of cocaine is the best local application in acute coryza, and that in chronic rhinitis with stuffing up of the nostrils it affords great relief. I have used it as a spray in the nostrils two or three times a day for five or six months at a time on a great many patients, and have never found any tendency to form the cocaine habit.

I have learned that in a great many cases a catarrhal condition of the pharynx and nose depends upon lithemia, and remedies to overcome this relieves the catarrh.

I have learned that antikamnia is better than morphine to relieve neuralgia of the stomach. It also acts well in most forms of headache. Phenacetine does about as well.

I have learned that a *hot* water compress in all kinds of bruises is much more effectual than cold in preventing capillary stasis and consequent discoloration. It also relieves the pain better than cold.

I have learned that a few whiffs of chloroform are very grateful to a woman in the last throes of labor. It takes the ragged edges off of the exquisite pain caused by the head passing through the vulvar aperture, and quiets the nerves greatly.

I have learned to let the woman in the puerperal state sit up on the vessel to relieve the bladder or bowels, instead of using the bed pan. This allows septic material to pass out of the vagina, thus preventing toxemia. I have never known a case of puerperal fever to occur where this method and cleanliness were practised.—S. T. Miles, *Eclectic Med. Jour.*

The Times and Register

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ELECTRICITY IN GYNECOLOGY.

WE have received the February number of Dr. Gautier's *Revue Internationale d'Electrotherapie*, and a series of papers by Apostoli and a few of his followers, which we take pleasure in annotating for the readers of THE TIMES AND REGISTER.

The journal, if it is to be judged by the number before us, is less a review of electrotherapy than an apologist for Apostoli and his high-pressure method of treatment of uterine fibroid tumors; the entire contents being letters of correction, of justification, and of more or less acrimonious debate between our French friend and those who differ with him in the use of electricity in gynecology.

Such disputes, perhaps interesting to those whom they immediately concern, form no part of general information, nor do they throw any further light upon the real subject—the employment of high or low pressures in these cases.

Our friends who prefer laparotomy at all hazards point with just glee to these disputes, and say that if the few men who claim to be experts in the surgical use of electricity will quarrel in so undignified a way, and then proceed to inflict their differences upon people who never injured them, there cannot be much in the procedure, and return to their knives with content.

Apostoli abuses Althaus, who was using electrical currents at all pressures for various diseases of women, years before there was any electrician in Paris except Tripier, in Rue Louis le Grand; then assails Lawson Tait, who doubts the accuracy of his statistics, and finally attempts to demolish his countryman, Danion, who opposes high pressure currents *in toto*.

These and similar articles fill the number of the journal before us, and, in the expressive slang of the day, "make us tired."

There are few American surgeons—and the statement will probably hold good of others, abroad—who

care a fig whether high pressure, low pressure, or any other kind of electrical currents are used in any way, and we only occupy this small space to show our readers how completely M. Apostoli deceives himself in supposing that the attention of the world is fixed upon him and the particular method which he improperly claims as his private property by right of discovery.

In the proceedings of the Berlin Medical Congress there is a paper by M. Apostoli commencing with the words, "The field of application of electric method which I *created* (italics ours) in 1882," and proceeding to an elaborate defense of the system.

Now, in point of fact, he did no creation whatever, with the sole exception of a system of measurement, which was employed two years before he began in 1882, and which to day is so inaccurate that no two meters register alike. High pressure currents inside the uterus had been employed by Meyer, Hutchinson, Beard, Kimball, and Newman in America, and by them discarded, to a great extent, as offering no advantages, clinically, over less dangerous and more easily handled low intensities.

This work was done between 1873 and 1876, and exact data are accessible.

Apostoli's "massive doses," either in medicine or electricity, seem to require constant labor in the way of "justification," and then fail of adoption by a majority of electro-surgeons. A few venturesome ones have followed his lead, but with extreme care and at a distance, while the greater number are content to achieve equally good results with infinitely less risk to their patients and their own reputation.

We do not believe that American surgery is less daring than French; but it is certainly more careful, for Americans at large have a way of holding medical men to a personal responsibility which does not obtain abroad.

And we venture the prediction that as electro-surgeons obtain larger experience, it will result in the employment of lower pressures progressively, until no one will use any greater amperage than is absolutely necessary to do the required work, quite irrespective of the time required.

As M. Apostoli would say, "*Qui vivra, verra!*"

W. F. H.

TREATMENT OF DIPHTHERIA BY HOT DILUTE SULPHUROUS ACID.—Ogden reports five cases of well developed diphtheria treated by gargles of hot dilute sulphurous acid with prompt and gratifying amelioration of the symptoms. In one case the patient was delirious, and the obstruction to breathing such that tracheotomy was suggested, and preparations made for its immediate performance. Before resorting to this method, however, it was determined to try boiling water to which sulphurous acid was added, as a gargle. In a few hours the patient showed signs of improvement, and in the course of the next day the membrane had almost entirely disappeared. The treatment of all the cases consisted in iron and chlorate of potash internally and dilute sulphurous acid (1.6 cc. to boiling water 128 cc.) as a gargle every thirty minutes to every hour. The most liberal diet and the free exhibition of stimulants aid much in the management of such cases.—*Medical Record*, April 4.

Annotations.

PEPTONES AND PEPTONIZED MILK.

IN the *Journal of Physiology*, Horton-Smith contributes a paper on this subject. As the result of an examination of Benger's peptonized beef jelly, he found that this substance contained about 10 per cent. of solids. Part of this was probably made up of salts and extractives, and gelatine was also present. The proteids present were chiefly in the form of albumoses, with a little peptone.

Darby's fluid meat proved to be almost identical; the peptone being in still smaller quantity. It was more concentrated, yielding about 75 per cent. of solids, of which 30 to 40 per cent. was in the form of albumose and peptone. It also contained over 12½ per cent. of sodium chloride. Hence, in neither of these preparations was there foundation for the claim that they entirely relieved the digestive organs of work.

Peptonized milk gave the same result, except that the proportion of peptone was much larger. But even with it the digestive organs were not relieved of the work of converting albumose into peptone. Further investigation showed that the ingestion of large quantities of albumoses and peptones did not disarrange in the least the metabolism of the normal body, for in addition to remaining in perfect health in every way, when dieting upon them, the uric acid excreted was found to remain normal in amount, and the ordinary relation of urea to total nitrogen to be unchanged.

GASTRIC SUPPOSITORIES.

A CLEVER woman lately delivered a lecture in this city on the subject of Health and Beauty, in the course of which she fell into a popular but exploded error with regard to the subject of the best kind of food. She suggested that from the fact that those following different callings in life needed different varieties of foods, we should ultimately have boluses in the form of compressed capsules, of various foods suitable for those following this or that pursuit. If this thought be carried out, we may expect to find in the refinement of differentiation, masses of food suspended from hooks in butchers' and bakers' shops, bearing such legends as, "For merchants;" "for clergymen;" "for laborers," etc. The truth is, however, that a lecturer on health ought not to make the mistake of advocating a diet of highly concentrated and compressed foods. It is a well-known fact that the stomach will not continue satisfactory work, unless it has something bulky in it to stimulate peristaltic action. And until, in the evolution of the future, the human stomach finally contracts to the size of an ounce bottle, so as to fit this concentrated stuff, we shall probably continue the familiar performances of prehension, mastication, insalivation, and deglutition, as of yore.

AS evidence of the liberal spirit with which The Philadelphia Polyclinic Hospital is managed, it has been decided that the full privileges of the wards, private rooms and suite of operating rooms may be extended by any member of the staff to physicians not connected with the institution.

Many physicians who are not attached to hospitals have frequently cases that they would like to have under the auspices of a hospital, with its resident physicians, trained nurses, and sanitary régime, and yet wish them under their own observation.

Patients thus admitted to this hospital are attended by the physician for whom the case is admitted as freely as though he were a member of the staff. The admission blanks must invariably be signed by a member of the staff, who thereby assumes the responsibility for acts of the physician, after which arrangements and terms may be made with the matron. Visitors are cordially invited to visit and inspect the hospital on Lombard street, above Eighteenth, on Mondays, from 3 to 4 P. M.

HYSTERICAL VOTES.

A SYMPOSIUM on woman's suffrage in the April *Chautauquan* contains an amusing reason, given by Rose Terry Cooke, why women should not vote.

It is because women occasionally grow hysterical, cry and do all sorts of unreasonable acts, and might in one of these tantrums cast a vote without giving the subject the careful consideration which a vote ought to have. True, some of the fair sex might, in the excitement of the moment, become hysterical, and throw in their vote without allowing their right hand to know how their left hand voted; yet on the theory of chances, probability is that the hysterical votes of one party would about counterbalance those of the other.

By-the-way, we should like to ask Rose Terry Cooke whether, if some one-half of the male voters of this glorious country should chance to cast their ballot whilst they were suffering temporary aberration of the mind, the likelihood of a just and intelligent election would not be as good as it is under the present conditions of judicious and unbiased voting by the masses?

Letters to the Editor.

THE Board of Medical Examiners of North Carolina will meet in Asheville, N. C., Saturday, May 23, 1891. Examinations will begin Monday, the 25th, at 9 A.M.

L. J. PICOT, M.D.,

Secretary.

OVERDOSE OF CROTON OIL.

SOME days since I heard of an encounter between a baby and some croton oil, from which contest the baby emerged victorious, but thoughtful. It seems that one of those mothers who love not so wisely as well, gave her eighteen-months-old child a banana, in direct disobedience to her physician's orders, who had treated the child several times previously for convulsions, caused by this tropical fruit. In a short time the infant was experiencing the usual consequences of this indulgence. The frightened mother hastily picked up a bottle of what she supposed was castor oil, but which really contained croton oil, that she had lately been using externally, measured out an even teaspoonful, and poured it down the unconscious infant. According to my narrator, the child almost instantly straightened out, and then, like Sancho Panza, let fly lustily from both ends. As to after-effects, its mouth was quite sore from the oil, and the child was somewhat sickly for about a month; but ultimately it entirely recovered from the effects of this enormous dose.

ERNEST B. SANGREE, M.D.

Book Notices.

A POET'S LAST SONGS. A score of Sonnets and Lyrics left unpublished at the time of his death by the lamented Henry Bernard Carpenter. They are precluded by a brief life sketch and character-study by James Jeffrey Roche. Boston: J. G. Cupples.

This little volume, whose title is given above, will be ready about May 1, in one volume, tastefully printed and bound, carefully collected by Arthur Macy, president of the Papyrus Club, with a reproduction of the photograph of Mr. Carpenter taken from the negative made by his friend, Benjamin Kimball, a few weeks prior to his death.

The proceeds, after paying binder and printer, will be given to Mrs. Carpenter. The price will be \$1.

PRACTICAL TREATISE ON ELECTRICITY IN GYNÆCOLOGY. By EGBERT H. GRANDIN, M.D., and JOSEPHUS H. GUNNING, M.D. Illustrated. Octavo, 180 pages. Muslin, \$2.00. New York: William Wood & Co.

It is stated that "the aim of the authors has been to present as far as possible an unbiased estimate of the value of electricity in the treatment of the diseases peculiar to women. The agent is considered, not from the standpoint of a specific, but as a valuable adjuvant to routine therapeutic methods." The prejudice against electricity, which seemed to be deeply rooted in the average physician's nature, originating from this powerful agent remaining so many years in the hands of charlatans, is rapidly dying out under scientific study and collaboration. The present work, in which everything with which the practitioner should be acquainted in the application of electricity to gynæcology is clearly set forth, should form an admirable text book on the subject. With Dr. Grandin our readers are already acquainted, several valuable papers from his pen having appeared in the pages of this journal.

COSMETICS. A Treatise for Physicians and Pharmacists. By Dr. HEINRICH PASCHKES, Docent at the University of Vienna. New York: William Wood & Co. Paper, pp. 210. Price, \$1.50. 1891.

For some time past an ever increasing need has been felt for just such a volume, the few recent publications on this subject having but scantily supplied the demand. Every practitioner who ministers to his "fair lady patients" will appreciate this little work. Those little blemishes and defects, which are often a far more serious cause for annoyance and worry than actual disease, are here well treated. The book is overflowing with formulas, and no doubt will be eagerly welcomed.

THE PHYSICAL DIAGNOSIS OF THE DISEASES OF THE HEART AND LUNGS AND THORACIC ANEURISM. By D. M. CAMMANN, B.A., Oxon. M.D., Attending Physician in Class of Heart and Lungs, Demilt Dispensary; Visiting Physician to the Orphans' Home and Asylum, etc. With twenty two excellent diagrams and illustrations. Boston: G. P. Putnam's Sons, 1891. Pp. 188.

The author states the book to be the "result of a series of notes originally thrown together by me for my own instruction and assistance in teaching." It contains much that is new, and should be an excellent guide to the student. Particular mention should be made of the table of heart measurements. Three hundred and sixteen measurements were made by auscultatory percussion, and the majority of them are now published for the first time. The book will doubtless prove a valuable addition to medical literature.

MEDICAL SYMBOLISM. By THOMAS S. SOZINSKEY, M.D., Ph.D. Illustrated. No. 9 in the Physicians' and Students' Ready Reference Series. Philadelphia: T. A. Davis, 1891. Pp. 170.

An erudite work, showing the painstaking care and research of one deeply versed in ancient lore. It deals with a quaint and curious subject, leading the reader into new fields of study and conjecture. Medical mythology is treated of very fully, and the most recent archæological and other investigations contribute their quota of interesting facts. The author was induced to undertake "Medical Symbolism" after the appearance of an article bearing this title in *The Medical and Surgical Reporter*, which attracted considerable attention both in this country and Europe. An additional interest is lent to the work from the fact that it is the last effort of its talented author, he having died shortly after he completed this volume.

MODERN ANTIPYRETICS AND THEIR ACTION. By ISAAC OTT, M.D. Easton, Pa.: E. D. Vogel, 1891. Pp. 52.

This little work is composed chiefly of the results of practical experiments made to determine the exact action of our modern antipyretics in health and disease. A chapter on the value of antithermics in typhoid fever is added. The book is illustrated with a number of interesting charts.

DISEASES OF PERSONALITY. By TH. RIBOT. Authorized Translation. Chicago: Open Court Publishing Co. Pp. 157. Price, 75 cents.

To those interested in the study of such subjects this translation will doubtless prove extremely interesting. The subject is well handled. The discussion of dual personalities under Emotional Disorders is especially meritorious. Its perusal awakens anew our profound interest in that inexhaustible problem, "consciousness."

The Medical Digest.

SYMPSON describes a case of vitiligo following influenza and erysipelas; and remarks that most cases of acquired vitiligo follow some acute febrile disturbance. Typhoid fever, scarlatina and remittent fever have all been succeeded by this complaint so directly as to leave no doubt that the latter was dependent in some way on the former.—*Lancet*.

PEPPERMINT IN GRIPPE.—I have had much greater success in treating grippe when using full doses of oil of peppermint in addition to quinine, and full doses of bicarbonate of soda, than without it. I give from 5 to 10 drops three times a day, and sometimes more, till the worst symptoms subside. The disease may be assumed as microbic, although the germ has not been discovered. It is probably many times smaller than the typhoid bacillus, and, in consequence, may never be found.

The history of grippe indicates a germ origin. It resembles, in many characteristics, other well-known germ diseases. I believe oil of peppermint to be a grippe germicide. It acts with the greatest promptness and speedily dispels the most alarming symptoms, at least as far as my experience goes. The oil of peppermint is a powerful stimulant to the nervous system, particularly the vaso motor, promoting regularity and decreased rapidity of the pulse, and relieving local congestion. It is the most diffusive of all the essential oils. These remarks are sufficient as hints to all practitioners who may care to make a trial of the remedy.—Hogeboom, *Med. Record*.

THE isolation of a community appears to result in a high susceptibility to disease when imported among them. For example: During my stay at Ascension Island, I was told by a resident official that a cold, introduced from a passing vessel, runs rapidly through the island as a severe epidemic. This effect is still more virulent, leading even to fatal results in the island of Tristan d'Acunha, where the isolation is more complete, and the people of British origin.

—*Pop. Science Monthly.*

ARSENICAL PARALYSIS.—At the Medical Society of Styria Dr. Marik raised an interesting discussion on the pathology and treatment of this malady. He said this form of paralysis was more frequent in France, England and Germany than in Austria, which he attributed to a greater use of arsenic in domestic ornamentation, as curtains, paper, etc. The poisonous dose is very variable; in one case almost nothing, while large doses are taken with no bad effect. He pointed to several cases of paralysis from the use of ointment containing this drug in large quantity when applied to wounds, cancer, etc. The temperature is usually undisturbed. He adopts Brouardel's and Pouchet's treatment of Kemmerich's meat peptones with large quantities of wine.

—*Med. Press.*

SULPHATE OF ZINC IN DIPHTHERIA.—Kilmer recommends zinc sulphate in the treatment of diphtheria. He reports two cases occurring in one family, a brother and sister, who were infected by the contagion carried from some malignant cases by their mother who had been nursing the affected children. The treatment of the two patients was identical, with the single exception that the boy was given a gargle containing fifteen to twenty grains of sulphate of zinc to an ordinary tumblerful of water. The visit on the next day showed that about half of the diphtheritic membrane had disappeared from the boy's throat, while the membrane in the girl's throat had spread in extent, and her condition was aggravated. The same condition was continued another twenty four hours, at the expiration of which time the exudate had entirely disappeared from the boy's mouth and throat, while in the girl's throat it had again at least doubled in quantity, and the general appearance of the throat was much worse. The girl was now placed upon the same gargle, and twenty-four hours later not only had the diphtheritic membrane disappeared entirely, but all the swelling and distress had gone also, and both patients were convalescent and speedily recovered.—*Medical Record*, April 4.

TREATMENT OF GALL STONES.—My conclusions are:

1. That it is as hopeless to expect to dissolve gall-stones as to dissolve stone in the bladder.
2. Protracted medical treatment should give way to operative measures in face of increasing frequency and severity of attacks.
3. Operation should be done early and not delayed until a forlorn hope.
4. Better a late operation than none at all where death is otherwise inevitable.
5. Cholecystotomy should be the operation of election, cholecystectomy never.
6. The mortality, in the hands of expert abdominal surgeons, is very small, probably less than 5 per cent.
7. In doubtful cases exploratory incision ought to be much more frequent, especially as the risk is infinitely less than the probable benefit.

8. A post-mortem diagnosis is no help to the patient, and but little satisfaction to the friends.

My views may seem dogmatic to many, but they are the result of the observation of many cases, of the disasters of dawdling, and of much reflection over my own operations, and especially the daily weighing of the merits of operative measures when my own life was in the balance, and the ever present apprehension and unutterable torture led me to accept for myself the operation which has given me the health and strength which I now enjoy.

—Seymour, *Jour. Am. Med. Assoc.*

TREATMENT OF ABORTION.—I. An abortion is a pathological process, involving the premature expulsion of the foetus and membranes from the uterine cavity, which normally, have an existence of nine months before they shall have completed their physiological intention.

2. That such expulsion is generally incomplete when left to Nature, thus exposing the patient to subsequent pathological conditions or possibly death.

3. That every case should receive a careful examination by the use of the blunt curette in preference to the finger, as it is safe, easier of introduction, and more effective.

4. Complete removal of all membranes, maternal and foetal, offers the greatest protection and safety to the patient.

5. Perfect asepsis and drainage is a necessary supplement to the curette.

6. Ergot has little or no effect in the treatment of cases of abortion. If used at all it should be in the latest stages to assist involution.

—H. C. Crowell, *Med. News.*

RATIONAL TREATMENT OF MALIGNANT GROWTHS.—At the Vienna Academy of Science Prof. Adamkiewicz again brought forward this subject of treating cancer according to the knowledge we possess of it. Two things must always be borne in mind, according to his opinion. That cancer is first a local process, second a general infecting disease, as proved by the metastasis. The rationale must also have two objects in view:

1. The removal of the original cancer to prevent further infection and to induce local healing.

2. To neutralize the system already infected, or in other words a general cleansing procedure.

In obtaining the first result he knows of nothing more effectual than the knife in the hand of a ready surgeon, however imperfect the results may be. The second indication, on the other hand, requires such a drug as will act on the morbid fluids that have made their way into the system, neutralizing the poison and destroying the cancerous metastasis. In addition to this property it ought to possess some power of relieving vomiting, cachexia, and emaciation. Now it must be admitted that these two indications cannot be fulfilled by the same drug, as has sometimes been affirmed and claimed for condurango. We must, therefore, look for a more rational form of treatment by inverting the process hitherto followed as moving from without inward. He then gave an account of his own method of treatment, and its success in destroying the metastasis and producing a healthy condition in the cancerous part. He showed cases whose history undoubtedly proved that the treatment produced softening, diminution, and gradual disappearance of the malignant growth.

—*Med. Press.*

PREVENTABLE BLINDNESS.—1. The largest proportion of blindness in the young can be prevented.

2. The majority of cases of blindness develop in the practice of the general practitioner, in the course of the invasion of the grave diseases of childhood, or as a sequence to these, or are a result of a contagious leucorrhœa in the mother.

3. To successfully prevent them, prophylactic measures should be adopted in all cases where danger is suspected, or where the eye shows a tendency toward inflammatory action.

4. The physician should be sufficiently acquainted with eye diseases to treat them skilfully when the eye becomes invaded.

5. After all severe attacks of the diseases of childhood the patient's sight should be carefully tested before he is dismissed as convalescent.

If these precautions were carefully observed, I am confident that the percentage of blindness would be greatly reduced among the young, and to the many thousand children that yearly become blind would be preserved this most precious of all the senses.

—C. D. Conkey, *N. W. Lancet*.

MAMMARY ABSCESS, SUPPURATING UMBILICUS, AND INFLAMED FINGERS.—Prof. Tarnier (*Journal des Sages Femmes*, February 16, 1891) shows how a year's statistics were spoilt in his lying-in wards. He found long ago that compresses soaked in weak sublimate lotion, and applied to the mammæ of lying-in women, proved very efficacious in preventing inflammation of the breast. He instituted the routine application of these compresses in his hospital a year ago, and just as the twelvemonth was drawing to a close, without a single mammary abscess, two cases occurred. Both were cured without incision. Prof. Tarnier attributed the first case to a dirty compress. The patient's child had suppuration of the umbilicus, and it seemed as though it had infected its mother, or *vice versâ*. The head midwife, however, found that the nurse had a sore finger, and the child had also sore fingers. The mother suckled the child. In a neighboring ward, a child, eight days old, lay ill with infiltration and suppuration of the stump of the cord. It was then found that the nurse had an inflamed finger. Hence, in two adjacent wards, there were two nurses with bad fingers and two children with suppurating navels, sufficient causes for further trouble, such as occurred in this instance. Hence, in lying in hospitals, not only must routine practice be rigidly enforced, but nurses' hands should be carefully inspected.—*Brit. Med. Jour.*

STIMULATION IN PULMONARY TUBERCULOSIS.—There are several probable errors quite commonly practised in the usual treatment of pulmonary tuberculosis. One is, that the patient is too frequently gorged with nourishment, and the digestive apparatus consequently kept in a state of disorder. I have seen a young phthisical girl, who always had a clean tongue, increase in stature and improve in health for several years, subsisting mostly on infusions of tea and coffee, but with so small a supply of reconstructive and carbonaceous foods that I decline stating the amount, fearing impeachment of my veracity, or of my powers of observation. A certain strength of arterial tension is desirable, but that can be gained by a frequent liberal supply of pure water. Milk is a good food, and possibly more than three meals per diem is frequently desirable; but very frequently better nutrition can be gained by a decrease in food, both as to frequency in the giving and as to the

quantity consumed. The food should be immediately adapted to the digestive ability of the patient in quality as well as in quantity, rather than to attempt to stimulate the digestive apparatus to accomplish work of which it is only capable during a general condition of vigorous health. Another probable error is the giving of alcohol as a beverage, under the belief that when thus consumed it is a source of force. Stimulation is necessary for life; but there are good and bad methods of stimulation, and unwisely chosen avenues for introducing stimulation to the body. Alcohol, without doubt, can be used so that its preponderating effect is stimulating; but as ordinarily used as a medicinal beverage its preponderating effect is anæsthetic, narcotic and depressing. The aromatic and flavoring ethers, etc., in certain wines and liquors, are of a certain value in stimulating the nutritive process, and may be used to that end; but the ultimate preponderating effect of alcohol in the general system is not of advantage in the curative treatment of phthisis, and for such treatment there are better tonic remedies than alcohol.

—Kitchen in *Medical Record*, April 4.

DIABETIC COMA.—J. D., aged fifty years, was brought home from work in the morning of November 13, in an exhausted condition. When seen by Dr. Hutchison he complained of loss of appetite and constipation. On the following day the patient was very drowsy, and could only be aroused with difficulty. The case now appeared to be one of uræmic intoxication. The patient's previous health had always been good. He had been a soldier, led a fast life, and drank a great deal; but for the past twenty years he had been steady, and regularly at work. There was no history of syphilis. For twelve years he had been passing an abnormally large amount of urine, but no attention was paid to it. Lately the amount of urine increased; there was marked loss of appetite, great thirst, and obstinate constipation. The patient was now considerably emaciated; the skin dry and sallow. Four to five quarts of urine were passed a day. It was of a pale straw-color; spec. gr., 1.032. Fehling's test gave a large deposit of oxide of copper. On November 19, the third day under observation, the patient felt better, and was able to move about the house. On the morning of the 20th he became very dropsical; breathing was slightly stertorous, and the pupil of one eye dilated (the other eye had been destroyed some years ago). The pulse could be faintly felt at the radial. During the day coma increased, until death ensued at 7 o'clock that evening, one hundred and twelve hours from the time he had left his work. The urine had been chemically examined by Dr. Ruttan. No acetone was found.

Dr. Hutchison remarked that the case was interesting to him from the fact that such advanced disease should have given rise to so few symptoms that a physician was never consulted until a few days before death. An abstract of the autopsy performed by Dr. Johnston was as follows: "Body of a spare, emaciated man; skin sallow, rough, and dry. Heart and lungs showed nothing special. There was slight cloudy swelling of the kidneys, with several large clear cysts in the center of each organ. Intestines and stomach were normal. The supra-renal capsules and semi-lunar ganglia showed no gross pathological changes. Brain pia, thick, and opaque over the convolutions, was readily detached; subarachnoid fluid was abundant, and the posterior cornuæ of the lateral ventricles were dilated. Throughout the cortex,

as well as the white matter, ganglia at the base and medulla, the brain cut with resistance. This was probably due to an atrophic change, with a relative increase of the connective tissue."

—*Canada Med. Record.*

WATER FOR BABES.—*En passant* while on the subject of infantile constipation I desire to emphasize the importance of teaching the babies and children to drink water freely. How many times the little one cries with thirst and it is stuffed with food in response to the cry; indigestion necessarily results and the thirst is not relieved, more than that, a too dry condition of the alimentary canal is favored and all this tends towards constipation. Great water drinkers are rarely constipated. Let us then remember, in the name of humanity, to give a cup of water to relieve not only the thirst of the babe, but also to favor that greatest factor which tends towards health, a properly open condition of the alimentary canal. If this habit be formed in early life and strengthened with the growth of the child when the years of maturity have come, like all other good habits, it will be a part of the life of the individual and cannot easily be broken.

The simplest and best remedy for infantile colic, or any other for that matter, is a free exhibition of hot water.

The relaxation and relief secured is positive.

Med. Mirror.

A NEW TREATMENT FOR CANCER.—Far more interesting than the announcement of the discovery of the micro-organism of cancer is the promise of a remedy for this fell disease, though with so many past disappointments rankling in the mind, one is naturally disposed to a prudent skepticism. As far back as 1889 Dr. Mortimer Granville made public a method of treatment by the combined use of thallin internally and papain externally, which he thought held out a hope of arresting cancerous growths. He now reports that his subsequent experience fully bears out his anticipations, none of the earlier cases having relapsed, large scirrhus tumors having disappeared, and the general health of patients having improved. Instead of "thallin," however, he now uses a periodohydromethyloxychinolin, because that is better borne, and seems to be more effective than the tetrahydro-paraquinanisol; and he either rubs into, or injects, the tumor with a papain specially prepared, to facilitate the action of the organized ferment of the papaw juice, which he believes produce the effects observed. Doubtless competent persons who have not already given the plan a trial will now proceed to do so, and we shall soon know what measure of confidence is to be accorded to this latest suggestion. Dr. Granville insists upon the fact that neither agent alone is possessed of any influence over cancerous growths, the combined treatment being essential to success.

—*Med. Press and Circ.*

THE EFFECT OF TOBACCO SMOKE ON MEAT.—Cases of poisoning due to meat which seemed thoroughly wholesome have sometimes occurred, and have remained unexplained. In the *Revue d'Hygiène* M. Bourrier, Inspector of Meat for Paris, describes his experiments with meat impregnated with tobacco smoke. Some thin slices of beef were exposed for a considerable time to the fumes of tobacco, and afterward offered to a dog, which had been deprived of food for twelve hours. The dog, after smelling the meat, refused to eat it. Some of the meat was then cut into small pieces and concealed within

bread. This the dog ate with avidity, but in twenty minutes commenced to display the most distressing symptoms, and soon died in great agony. All sorts of meat, both raw and cooked, some grilled, roasted, and boiled, were exposed to tobacco smoke and then given to animals, and in all cases produced symptoms of acute poisoning. Even the process of boiling could not extract from the meat the nicotine poison. Grease and similar substances have facilities of absorption in proportion with their fineness and fluidity. Fresh-killed meat is more readily impregnated, and stands in order of susceptibility as follows: pork, veal, rabbit, poultry, beef, mutton, horse. The effect also varies considerably according to the quality of the tobacco. All these experiments would seem to denote that great care should be taken not to allow smoking where foods, especially moist foods, such as meats, fats, and certain fruits, are exposed.

—*Sanitarian.*

DEVIATIONS OF THE NASAL SEPTUM.—First, however, I must say, that I proceed to cutting treatment only in cases of absolute necessity, *i. e.*, when there exists one of the well-approved indications. I do not go too far in saying that, if we have lately sinned in the want of courage in the performance of surgical procedure in rhinology, so especially latterly have we been too rash in performing operations where there is no necessity. It often thus happens, that instead of helping the patients, we injure them through our intervention. The necessity of operative treatment for deviations of the nasal septum is not so frequent as some authors pretend. As in every disease, so also in deviations it is of exceedingly great importance to establish the strictest rational indications.

My methods of treatment of this disorder are the following:

1. In fresh cases (of a traumatic origin in parte cartil. septi in children) I use tampons of wool.
2. In little older cases of deviations of the cartilaginous part of the septum—especially sigmoid, I try orthopaedic treatment, by means of Adams-Jurasz's instrument.
3. My favorite method is the galvano-cautery, especially in cases of spinæ and cristæ (spurs), rarely in deflections (mostly in angular form).
4. Sometimes I also use the chisel, or Bosworth's saws, but always after the previous separation of the mucous membrane, especially in cases of spurs.
5. In cases where the septum cartilaginosa deviates to one or other side, not being on the same plane as the septum membranaceum (the above described form), and sometimes disfiguring the nose, or at least producing respiratory troubles, I use Jurasz's method. I dissect the mucous membrane on the prominence of the septum—separate it from the cartilage, and by means of the headed knife (or scissors) make resection of the projecting part of the cartilage. After sewing up (or not) the mucous membrane, I put in a tampon of iodoform or sublimate wool. Healing usually quickly follows by first intention. This method, as I have already mentioned, is often applied only from anæsthetic considerations. I have presented in general terms the methods which I use in the treatment of the deviations of the nasal septum. Intentionally I do not enter into minute casuistics of the cases observed and operated upon by me, in order not to enlarge this already too extensive paper.

—Sedziak, *Jour. Lar. and Rhinol.*

TRANSMISSION OF ACQUIRED CHARACTERISTICS.—To realize adequately the efficiency of the use and disuse of parts as working change in natural selection, we should first of all remember how slowly change is effected—by natural selection even much more slowly than by artificial selection. The day of belief in cataclysms has vanished. We must think of selection as accomplished, however accomplished, whether in progression to higher or retrogression to lower forms of life, as an exceedingly slow process. We must conceive of it as representing the survival of the fittest in a perpetual struggle for existence, in which all organisms are only relatively more or less fitted to their environment. And yet we must conceive of it at the same time as a condition in which each organism may be regarded as absolutely fitted at a given time to its environment. This must be true if evolution is—as it certainly is—perennial. The contradictoriness of the two conceptions merely involves a confession of our inability to detect slight differences by which an organism must be deficient in perfect accord with its environment. It is, in a word, a confession of our inability to distinguish degrees of correspondence, or want of correspondence, between organic and inorganic nature when the existences affected approach the limits of perfection.

—Shoemaker, *Med. Bulletin*.

THE BROWN-SÉQUARD TREATMENT.—The conclusions formulated some time since by that veteran physiologist, Dr. Brown-Séquard, have since added to his notoriety if not to his fame, but professional opinion still hesitates to ratify a procedure, the clinical results of which have hardly been such as to overcome the repugnance the method of necessity inspires. The learned gentleman has now gone a step further in this particular line of research, and recently communicated to the Society of Biology his subsequent observations. Alluding to the enhanced physical and mental energy which followed subcutaneous injections of testicular fluid in his own person, he observed that the effects began to diminish in about six weeks and finally disappeared. It then occurred to him to try the effect of similar injections *per rectum*. The result exceeded his expectations, but he found it necessary to increase the quantities injected proportionally to the difficulty of absorption. He concluded his paper by relating the experience of a medical man whose wife was in a condition of extreme exhaustion consequent on repeated attacks of metrorrhagia. Convinced of the value of testicular juice in such a case, the husband on several occasions injected a cubic centimeter of semen subcutaneously, and on each occasion a marked improvement followed. Dr. Brown-Séquard disavows the use of semen for the purpose of subcutaneous injections, on account of the possible danger of septic mischief, and although histologically there may be little difference between testicular juice and seminal fluid, one would on æsthetic grounds prefer the former. Seeing, however, that the vagina possesses absorptive powers analogous to those of the rectum, it is not easy to understand why absorption, *via* the rectal mucous membrane or subcutaneously, should prove so beneficial, while that *per vaginam* is devoid of any therapeutical effects.

—*Med. Press*.

PATHOGENESIS OF RECTAL FISTULA.—A very strong, healthy man came to me who had had trouble about the rectum for a number of years. He gave a negative family history. I examined his rectum and found three old fistulous openings, two of which at

this time were discharging pus into an opening in the anus. They extended from the skin lying between the two sphincters, the sphincter levator ani, at the junction of the anus and rectum, and the sphincter ani below that. I introduced a sound into these tracts and found considerable pyogenic material present. I laid them open, and scraped that membrane out thoroughly with a curette under due antiseptic precautions, and stuffed the cavity with iodoform gauze, of course stretching the rectum thoroughly also.

The cause of this man's trouble was his uncleanly habits. He did not wash himself thoroughly, and large bunches of hair were situated around the lower part of the rectum. As a result of this lack of attention to cleanliness on his part, he gradually developed an eczema of this region, and in scratching himself produced small fissures in the folds about the anus. These hairs worked themselves into the clefts, causing abscesses about the rectum, which perforated the connective tissue, and being in close proximity to the rectum, had perforated the intestine, and in that way formed a rectal fistula. This condition of affairs lasted for years, and would have continued through his life—though the man was in perfect health—simply because the germs of the disease were maintained in a favorable culture-ground for perpetuating themselves. The drainage was so imperfect in this case that a radical measure had to be resorted to to secure thorough drainage of the parts.

Wylie, *Int. Jour. Surgery*.

STATISTICS AND TREATMENT OF DIPHTHERIA.—Statistics as to the cases of diphtheria and croup treated in the Children's Hospital of Pesth are given by Dr. Johann Bokai (*Wien. Med. Woch.*, No. 10, 1891) for the years 1889-'90. There were 447 cases of diphtheria, and 32 of "primary laryngeal croup." Post-diphtheria palsy was noted in 10 per cent. of the cases. The mortality among the 447 cases of diphtheria, of whom one-quarter were under three years old, was 234 (54 per cent.); in 170 cases the larynx was not affected, and the death-rate in this class was only 23 per cent. Laryngeal croup occurred as a complication of faucial diphtheria in 237 cases; 53 cases recovered, 32 without, and 21 after, tracheotomy, which was performed 159 times. In the group of 32 cases of uncomplicated laryngeal croup, 16 cases recovered; 7 without, and 9 after, tracheotomy, which was performed 23 times. The treatment adopted in pharyngeal diphtheria was the internal administration of chlorate of potassium, gargling with lime water, and painting two or three times a day with a 5 per cent. solution of perchloride of iron in glycerine, which Bokai believes prevents the occurrence of laryngeal complications. After tracheotomy steam inhalations were continuously used, and perchloride of mercury internally. Sulphate of copper was used as an emetic, and was of great value in the early stages of laryngeal croup, but the prolonged use of emetics was dangerous. Tracheotomy was resorted to when suffocation was imminent; the operation, in Bokai's opinion is contra-indicated in septic cases, and in those in which the symptoms point to involvement of the bronchi. In the discussion which followed the reading of Bokai's paper at the Buda-Pesth Society, Professor Gerlőczy stated that 157 cases of diphtheria had been treated in the Roshus Hospital with a death rate of 43.9 per cent. Dr. Glass spoke favorably of treatment by Lőri's method; this consists in burning about three-quarters of a pound of sulphur in a room, at the end of four hours ventilating the room for five minutes,

and then placing the patient in it; an adjoining room is then prepared for the patient in the same way.

—*Brit. Med. Jour.*

TWENTY CASES TREATED BY TUBERCULIN.—I.

The experiments were made on twenty cases, and of these, nine patients were suffering from pulmonary, or laryngo-pulmonary, phthisis, seven from lupus, and in four the experiments were carried out for purposes of diagnosis. The period of treatment extended over four months.

2. With the exception of two of the earliest cases, in which the treatment was made at the urgent request of the patients, who had carefully studied everything which had been written on the subject, the patients were carefully selected. Many others were rejected because the disease was too far advanced, and some because, though there was evidence of long-standing disease, the morbid process was quiescent at the time the patients presented themselves.

3. No other medical treatment than the injection of tuberculin was adopted, except that some of the phthisical patients wore inhalers containing carbolic acid at intervals for six hours daily.

4. No accident or immediately unfavorable result supervened, except that in one case (A) severe dyspnoea, apparently from spasm of the smaller bronchial tubes, and in another case (P) spasm of the glottis occurred. Of the sixteen cases treated (phthisis and lupus), eleven were benefited, four were unfavorably affected, and in one no benefit resulted.

5. In the phthisical and laryngo-phthisical cases, bacilli were found in every instance before the treatment was commenced. After one or more injections, the bacilli were found to be curved or irregularly bent, and in some cases apparently broken into smaller fragments.

6. The sphygmograph was used in most of the cases, and during the fever following the injections, except in one case, the tracings showed a pulse of exceedingly low tension, with a markedly dicrotic wave; in some instances, indeed, there was marked hyperdicrotism, such as is only seen in the severe and long-continued febrile diseases. In the exceptional case (F) referred to, the pulse became dicrotic in the intervals between the fever, whilst during the reaction it was firmer, and indeed almost normal.

7. In the phthisical cases, there were two in which the disease was confined to the lungs, and seven in which the lungs and larynx were both affected.

8. In the purely pulmonary cases, one was "much improved," and the other "improved."

9. In the laryngo-pulmonary cases, one patient was "much improved," one "improved," four "unfavorably affected," and one "not improved."

10. In the phthisical cases which were either "much improved" or "improved," the improvement was not greater than is occasionally seen, both in private practice and in hospitals, after a few weeks of other treatment, combined with rest and suitable food.

11. Of the four cases of laryngo-pulmonary phthisis unfavorably affected, two died. In one of these cases death took place seven weeks, and in the other six weeks, after the last injection. In both these cases death was believed to be accelerated by the injections. Attention must be called to the fact that, in both of these subjects, cavities existed in the lungs before the treatment by injection was commenced, and that it was only carried out at the earnest desire of the patients.

12. In the case which is returned as "not improved," the condition of the lungs was slightly ameliorated. The larynx was better at one part, but worse at another. The general health had slightly declined.

13. The effect on the lungs from twenty-four to thirty-six hours after an injection was, in nearly every case, an increase of crepitation at the spot affected, and an extension of the area of crepitation. This was subsequently followed in the favorable cases by a drying up of the moist sounds and by a contraction within the original limits of the area of crepitation. In the unfavorable cases the area of crepitation did not contract after injection, and the softening resulted in the formation of cavities.

14. When any effect was produced on the larynx by injections, great redness of the mucous membrane usually occurred.

15. In three out of the seven cases, circumscribed acute oedema took place, but in no instance was any dyspnoea produced.

16. The natural tendency of the disease in laryngeal phthisis being slow, and the deposit being generally rather dense, the local appearance is usually somewhat anæmic; in the cases treated by tuberculin, the deposit or exudation was thinner, the vessels more injected, and the morbid process more acute.

17. In the seven lupus cases treated, every patient has been benefited, though no case can as yet be said to be completely cured.

18. The effect of the injections was more marked on the skin than on the mucous membrane, and also more active on the mucous membrane of the nose and lips than on that of the larynx.

19. The local reaction and general rise of temperature was much higher in lupus than it was in the pulmonary and laryngeal cases, but in the end the lupus cases tolerated much larger doses.

20. In one case, after .10 c.c. injected into the back had produced no effect, .002 c.c. injected into the turbinated body caused a decided local reaction and general rise of temperature.

21. In all the patients treated, in addition to other food, an abundant quantity of milk was allowed. Wine was given in several cases.

22. Before entering the hospital, one or two of the patients had been insufficiently fed, and one had continued to work when not in a fit condition of health.

23. The general result of injections as an aid to diagnosis was on the whole satisfactory, but it cannot be said that any great gain resulted from the use of the tuberculin—that is to say, the conclusions would have been just the same in every case, except one, even if no injections had been made. In the case referred to, although there was every reason to think that phthisis was present, no reaction took place, but as there was no expectoration, and therefore no possibility of determining the presence of bacilli, it cannot be said that the value of an injection for diagnostic purposes was invalidated.

24. Whilst the injection of Koch's fluid may not have deserved the enthusiastic reception it first met with, it does not merit its present obloquy. Prof. Koch has made a most important discovery, and when the details as regards dosage have been thoroughly worked out, and conclusions have been arrived at as to the best kind of remedies, constitutional and local, to combine with it, tuberculin will prove a most valuable addition to the curative agencies in the hands of the physician.

—Sir Morell Mackenzie, *Jour. Lar. & Rhin.*

HYGIENIC MEASURES IN THE TREATMENT OF CATARRHAL AFFECTIONS OF THE UPPER AIR-PASSAGES.—Bosworth, while entertaining the belief that catarrhal diseases affecting the upper air-tract are, as a rule, not dependent on any constitutional diathesis, but are, on the contrary, purely local in character, and consequently that the prominent indications for treatment lie in the resort to topical remedies, thinks that much can be accomplished in ameliorating local conditions by the enforcement of certain hygienic measures. He believes that in many cases, especially in young children, these measures are of greater importance even than local applications. Catarrhal troubles largely come from the habit of taking cold, and this habit must be broken up. The enforcement of certain common sense rules in regard to clothing, and the judicious use of the bath will do much to accomplish this. The greatest safe guard in the avoidance of taking cold consists in maintaining the skin in a state of healthy functional activity. An excessive amount of clothing necessarily hampers this function, and the same can be said of improper fabrics. The underwear should be thin, porous, and highly elastic. Wool alone answers to these properties. Our first hygienic rule, then, should be to insist upon our patients suffering from catarrhal diseases wearing wool underwear. It is the habit of most people to make two, three, or even four changes of underwear in the course of the year. This is a mistake. The same thickness of wear should be maintained throughout the year. What the bath does is mainly to promote a vigorous circulation in the skin, and thereby a healthy activity of the heat-regulating function of the skin. A still further effect is toning up of the nerves and invigorating the whole system. This is best accomplished by means of the cold bath. A warm bath is relaxing and depressing as a rule. A patient suffering with catarrhal troubles should not risk the Turkish bath. It is far more liable to aggravate than to break up a cold. The latter should be repeated daily while tolerated. Immersion should last but twenty to thirty seconds, chilling being avoided. It should be followed by brisk rubbing.—*Medical Record*, April 4, 1891.

EARLY SYMPTOMS OF PREGNANCY.—Waldo reviews the symptoms of early pregnancy with their diagnostic value. He regards suppression of the menses as only corroborative, and not a symptom of any great value in itself, since suppression may occur from many causes other than pregnancy, and menstruation may persist during some months or the whole of gestation. Digestive disturbances are of little diagnostic value. Changes in the mammae—as dilatation of the veins on their surface, a sense of weight, darting pains, and an increase in their size are of some diagnostic importance. It has been claimed that milk or colostrum in the breasts of a millipara was positive evidence of pregnancy, but there are a number of cases reported that prove the fallacy of this statement. Montgomery considered that the development of a secondary areola, and of the elevations named after him, were positive evidence of a gravid condition. Still, Montgomery's glands may develop in women who are suffering from some form of inflammatory disease of the uterus or its appendages. Pigmentations and the shape of the abdomen are of very little importance. A number of writers have mentioned blueness of the vulva as a very important early sign of pregnancy. It is such if the uterus is in its normal position, if there is no obstruction to the general return circulation, and no inflammatory disease in the uterus or its appendages.

The most important of all the early symptoms of pregnancy is the so called "Hegar's sign." This consists in a loss of the nulliparous pear shape of the uterus. Its contour no longer gradually diminishes as it approaches the uterine neck; the body, on the contrary, bellies out over the cervix in the transverse diameter, in particular antero-posteriorly, and the organ, instead of being pear-shaped, resembles very much an old-fashioned pot-bellied jug. This sign can be obtained as early as the sixth or eighth week of gestation, and is produced by nothing but gestation alone.—*The Post-Graduate*, April, 1891.

RHEUMATIC AND GOUTY INFLAMMATION OF THE TESTIS.—Lydston believes that in many cases in which inflammation of the testicle occurs as a complication of urethritis, the underlying cause is a rheumatic or gouty diathesis. In cases of chronic urethral disease, such as stricture and gleet, the testicle very often becomes inflamed. In the majority of cases this inflammation is, perhaps, due to a direct extension of inflammation from a stricture, or to infection by the products of bacterial development at the site of the chronic disease. In some cases, however, he is convinced that the pathological process in the urethra is of secondary importance from an etiological standpoint. In these cases there is a gouty or rheumatic diathesis, the results of which are likely to manifest themselves at any point where irritation exists. The pathological process in the urethra produces a marked irritability of the associated structures, and especially the testicle. Reflex neuroses, resulting from stricture, and manifested by pain in bladder, prostate, testicle, and even rectum without actual organic disease of these parts, are, by no means, rare. Given, therefore, a patient with a rheumatic or gouty diathesis, acute inflammation may set up at any point where glandular fibrous, serous or synovial structures are the seat of irritation, reflex or direct, it is consequently, by no means, surprising that such patients when affected by chronic urethral disease should develop an orchitis, an epididymitis, or a cystitis. The abundant nervous supply, extreme sensitiveness, and peculiar fibro-glandular structure of the testicle render it especially susceptible to this form of inflammation, and its susceptibility is unquestionably enhanced by its intimate association with so typical a serous membrane as the tunica vaginalis testis. These inflammations of rheumatic or gouty origin yield promptly to anti-rheumatic treatment. The salicylates rapidly reduce the intensity of the inflammatory action and induce prompt relief.—*Western Med. Reporter*, March, 1891.

ARISTOL IN DISEASES OF THE EYE.—This drug has been for some time before the medical profession as an application to wounds, ulcers, and other conditions in which iodoform has proved of value. In its physical characteristics it is superior to iodoform by its greater lightness and finer state of pulverization. In its application to the eye these qualities are of much importance, as the mechanical irritation of small particles not sufficiently pulverized often exceeds the alterative effect which we wish to obtain. Apart from this, aristol seems to excite much less irritation than iodoform, even when finely powdered, and can be used with much greater freedom without exciting as much reaction. The faint odor which it possesses is another point greatly in its favor, especially when used around the face.

The class of cases in which it shows its effects most markedly comprises follicular inflammation of conjunctiva, phlyctenular disease of the cornea and conjunctiva, marginal blepharitis, ulcers, and after-enucleation of the eyeball as a desiccant. In epithelioma of the eyelids, in my experience, it lessens the discharge from the ulcerating surface, but exerts no further action on the progress of the disease. In a case of lachrymal abscess, resulting in a large, sloughing ulcer, 1 centimeter in diameter, one week's treatment by aristol sufficed to close it entirely. In a case of enucleation of the eyeball occurring in the practice of my colleague, Dr. de Schweinitz, aristol was dusted in the socket immediately after the operation; on opening the lids on the second day no discharge was visible, the aristol had collected in a little heap around the conjunctival opening, and, on lifting this out, the center of the aristol was found to be quite dry.

The rapidity with which phlyctenular diseases yield to its application is very satisfactory, and, as its use causes very slight irritation, there is no pain attached to its employment. The largest field for its employment is probably here. As we often desire some preparation of iodine to be exhibited internally, we avoid the risk of using calomel, which is free from odor, but is liable to produce sloughing of the conjunctiva when dusted into the eye while the patient is taking an iodide, and the unpleasant odor of iodoform, which is intolerable to many persons, by employing aristol, which agrees with iodine compounds, and is free from any noticeable odor.

In papillary trachoma it seemed only to aggravate the symptoms, and no beneficial results appeared to follow its use; but, on the contrary, the photophobia, lachrymation, and corneal opacities increased. This appeared to me to be due to the withholding of the proper treatment more than to any positively injurious influence of the aristol. In follicular trachoma its effect is very decided.—Wallace, *Univ. Med. Mag.*

GIBBES SHURLY METHOD OF HYPODERMIC MEDICATION AND CHLORINE INHALATION FOR PHTHISIS PULMONALIS.—*Hypodermic Injections.*—As chemicals may cause considerable pain to some people when injected under the skin, the site chosen may be previously treated by the application, for two or three minutes, of a wad of flannel which has been saturated with a mixture of ether and chloroform (equal parts), or, ether (two parts), chloroform (two parts), and menthol (one part), or, better still, one of these mixtures may be sprayed upon the part. With many people, however, the pain is only momentary, and they will not require such preliminary treatment. The injection may be made at any time of day and without reference to temperature of the body. The evening will be found generally acceptable to the patient. Although the fluids may be injected at almost any convenient region of the body, the gluteal region will be found preferable on account of the loose cellular and adipose tissue of the part, and because there is less danger of abscess or sloughing of the skin. The chemicals used should be *pure*, or troublesome abscesses will be likely to occur.

The Hypodermic Syringe.—Any hypodermic syringe can be used. Care should be taken to keep the syringe clean. It should be washed with hot water, and then with alcohol, or a five per cent. solution of carbolic acid, directly after its use. Drawing a little kerosene oil in occasionally will prevent the packing from getting too dry.

Iodine.—To commence with, the dose of the iodine solution should be about one-twelfth (1-12) of a grain, gradually increasing daily until one half (1-2) or perhaps one (1) grain is reached, when it may be gradually diminished or substituted at once for the gold and sodium solution. The temperature is likely to go higher for at least the first week, and as the chemical becomes diffused its effects may be shown in increased mucus secretion from the bronchial tubes, sensation of dryness of the throat, redness of the eyes, and coryza, characteristic erythema of the skin, diminution of urine or of diarrhoea, and loss of appetite. During this period there is generally loss of weight. In susceptible patients these symptoms may supervene after two or three injections only, in which case the gold solution should be used. In a few instances, after thorough diffusion, the characteristic reaction of iodine with starch may be obtained in the urine, and even in the perspiration.

Chloride of Gold and Sodium.—The chloride of gold and sodium solution causes less pain than the iodine; in fact, in the majority of instances no pain save the sting of the hypodermic needle. The dosage, like that of the iodine, should be gradually increased, beginning with about (1-30) or (1-20) grain and increasing up to (1-5) or (1-3) grain. The more immediate effects noticeable from the larger doses are vertigo, nausea, sensation of constriction at lumbar region, and headache, and lowering of pulse tension. With many persons the continued use of this solution will cause profuse perspiration, which, however, is soon stopped or checked by lowering the dose or stopping the use of the chemical. When hectic fever is not broken up by these injections, hypodermic injection of bisulphate of quinine from three to six grains, alternately with the iodide solution, may be given with great benefit.

Chlorine.—Chlorine may be administered either by directly diffusing the gas in the atmosphere of a small room, or spraying chlorine water through a face-shield inhaler. In either case it must be freely mixed with chloride of sodium. The gas may be evolved from chlorinated lime, by the addition of dilute hydrochloric acid, using from one-half to three drachms of the lime for a sitting, in a room about 8x9 feet and 9 to 10 feet height of ceiling.

Previous to this, however, it will be necessary to diffuse through the atmosphere a spray of a saturated solution of chloride of sodium, which spray should be kept up during the sitting. The patient may be allowed to remain in the room from ten to thirty minutes, according to the effects observed. While so placed the patient should be instructed to breathe through the nose, keeping the mouth closed, and to refrain from talking. If coughing supervene to any great extent the sitting should terminate. One, two or three inhalations may be given daily.

The chlorine water should be carefully made according to the U. S. P. It may be administered as a spray, mixed with a saturated solution of chloride of sodium, in the proportion of one-third to one-half. From one-half to two ounces of the mixture may be used at a sitting, once, twice or three times a day. In some cases after a time a general soreness of the throat may be complained of, when this happens the treatment should be suspended for awhile. Chlorine, by either of these methods, should not be administered where there is danger of hemoptysis.

—The Harper Hospital Bulletin.

PHAGOCYTOSIS IN DENTAL LESIONS.—The treatment of alveolar abscess in years past has been founded on a principle of reasoning from effect to cause, without an intelligent apprehension of the nature of either the effect or the cause. We argued the necessity of stopping the root canal after a course of treatment, in order to obliterate or do away with a reservoir into which fluids might seep, there to decompose and "react" upon the parts beyond. The condition thus brought about was one in which, in the popular parlance, the lymphatics could have an opportunity to control, absorb, or what not, the seeping fluids. In all this there was no recognition of what Bouchard terms the bactericidal condition, accessory to the aggressive function of that microbe destroyer, the phagocyte. We knew that through the use of medicaments we could induce, sooner or later, a condition in the abscess of tolerance, which we recognized as the restoration of the balance between the so-called vital resistive force and the disease-breeding agents. But that this was a chemical condition slowly brought about, through which microbes of infection were destroyed, we had no suspicion. We viewed the recurrence of swelling in the gum, months and even years after our treatment of roots, noting the absence of pain, but being unable to account for that fact. There the microbes, according to Bouchard's theory, were again at work, but with weakened functions, owing to the fact of their having to contend with the vaccine elements of other colonies of microbes once occupants of this field. Here again we recall a principle laid down in works on surgery: "That a part once inflamed becomes weakened, inviting a recurrence of inflammation on the slightest exposure to the causes of inflammation." The recurring inflammation may be persistent, but it is of the low grade indicated by the word "chronic." The microbe is persistent because through the prevention of vascular dilatation, exudation, and diapedesis, the phagocyte is afforded no opportunity to combat him. At the same time, as Bouchard affirms, the microbe's functions are embarrassed from the fact that while on the one hand it secretes irritant matter, it also secretes these vaccine elements before referred to, the protective influence of which presently begins to be manifest.—Sage, *Dental Review*.

TUBERCULIN.—It was immediately placed upon trial and subjected to rigid investigation by competent observers in different parts of the world. It is still too soon to sum up impartially the value of Koch's discovery in practical medicine; it seems, however, to have decided influence in controlling localized tuberculosis or lupus. Unfortunately, the newspapers, that know a little about everything—and that is about all they do know—entered the field of scientific discussion, and, eager for a sensation, darkened counsel by words without wisdom, and inspired many poor consumptives with the false hope that if they could only go to Berlin and receive one or two hypodermic injections of lymph, their physical sins would all be forgiven, and they would be restored to their family and friends whole and without a blemish. I say patients entertained such views, and for this the public press is largely responsible; while I hasten to add that the medical profession and the medical press are not without culpability. The eagerness of a few competent bacteriologists to see for themselves just what Koch claimed and could demonstrate led them to undertake a long journey to make experiments in Koch's laboratory. A greater number of medical men, having leisure and money, took in Berlin as an

excuse for a European trip. A very large number, I am afraid, deliberately counted the cost and took the trip solely for advertising purposes. In the meantime, patients were fretting themselves and annoying their physicians because they thought the latter were behind the times and not progressive enough. Now the fever is over, and we cannot point to anything that would warrant the extravagant claims made by others about Koch's alleged discovery. Mind you, such claims were not made by him; his language was temperate and scientific; and if, in his course through the entire transaction, we see anything which is open to criticism, we must remember that, while devoted to science, he was in the employ of the German government, and there appears to have been some conflict of allegiance.

The moral that I would draw from this is, that medicine is so controlled by scientific methods at the present day that false therapeutic teachings cannot possibly gain a permanent foothold. The time for theories and dogmas, for pathies and schools in medicine, belongs to a past age.

—Woodbury, *Med. Bulletin*.

Medical News and Miscellany.

DR. JOHN S. STEWART, has removed to 1537 Chestnut street.

THE Pennsylvania "Medical Examiner's bill" has passed the Senate and will come before the House in about a week.

WHAT a pity our esteemed contemporaries do not study brevity in their cognomens. Most of the lengthy titles could be shortened with benefit.

THE agricultural journals welcome the return of Dr. Billings to the study of the diseases of animals with a heartiness that must be very gratifying to Dr. B.

THE height of impudence appears to be reached when a foreign patent medicine house sends us a circular on which we are called upon to pay customs duty.

THE North Carolina Medical Journal states that there is no intention of starting a degree conferring medical school at Trinity College, but a preparatory school of high degree. The plans are not yet matured.

ST. LOUIS recorded 856 deaths during March, representing an annual rate of 22.33 per 1,000, and being 181 more than for March, 1890. The increase was mainly in respiratory diseases, pneumonia contributing 145, as compared with 70 last year.

IN Dublin an accident insurance company was called on to pay \$5,000 to the widow of a surgeon, who had died of blood-poisoning, the result of a post-mortem wound. The company resisted payment, but the court decided in favor of the plaintiff.

PROF. ROSWELL PARK, of Buffalo, New York, will deliver the remaining four lectures of the Mütter Course on Surgical Pathology, in the Hall of the College of Physicians, northeast corner of Thirteenth and Locust streets, Philadelphia. Subject, Surgical Bacteriology. The medical profession are cordially invited to attend.

THE medical hat bobs up again; this time in the suggestion that the doctor's coachman shall wear a white hat. This may be elaborated, so as to be quite useful. For instance, the white hat may have a band

of blue to designate the prevailing state of mind in which the general practitioner exists; a red band would happily fit the surgeon, with various shades to suit the surgical specialties. Yell-oh belongs to the laryngologist, but green to the recent graduate, never.

THE Buffalo Medical and Surgical Journal, pays its respects to an esteemed contemporary, in the following vigorous style: "To the *New York Medical Journal* we desire to say that we are not in the habit of speaking in these columns without authority when we refer to the actions of a body of men; so, when we asserted in our April number that the University bill had been introduced into the two houses of the legislature *without* the consent of the medical faculty of Niagara University, we did so advisedly. Moreover, we now re-affirm that the aforesaid faculty is not only *opposed* to that bill, but is in *favor* of the present law regarding State examination and license, desiring to have it tested before any attempt is made to amend or supplant it by further legislative action. And this, even though a single member of the faculty may have written a contrary statement to the *Journal*."

MEDICAL COLLEGE COMMENCEMENTS. — There have been reported so far 40 college commencements, with 1,695 graduates. Buffalo University graduated a class of 83; Taylor University, 13; Texas Medical College, 2; Omaha Medical College, 8; Rush Medical College, 189; Georgia Medical College, 53; Detroit Medical College, 48; Tennessee Medical College, 18; Columbus Medical College, 40; The Chicago Woman's College, 30; South Carolina Medical College, 15; Marion Sims Medical College of St. Louis, 35; National Medical College, District Columbia, 24; St. Louis Medical College, 68; The Atlanta Medical College, 80; Michigan College of Medicine, 27; Georgia Woman's Medical College, 7; The Iowa University Medical College, 21; The Kansas City University Medical College, 30; Grant University Medical College, 13; Keokuk Medical College, 3; The Southern Medical College, 36; Long Island College Hospital, 82; Fort Wayne College of Medicine, 13; The St. Louis College of Physicians and Surgeons, 68; Kansas Medical College, 23; Medico-Chirurgical College, 35; Jefferson Medical College, 188; Toledo Medical College, 8; Northwest Ohio Medical College, 3; Alabama Medical College, 37; Central College of Physicians and Surgeons of Indiana, 17.

A SETTLED THING.—The surgeon must hang up his saw; the medical lecturer close up his jaw; procurers of stiffs fling away all their bags, and physicians dine off the spare ribs of their nags. For a wonderful thing has come over the sea, a miraculous thing it is proving to be; the fountain of health and the cure of woes, from cleansing the liver to wiping the nose. 'Tis Koch's lymph! which shall last while the earth shall endure. 'Tis Koch's lymph! —then all hail to the wonderful cure! And, most wonderful thing of these wonderful days, the lymph is procured in the simplest of ways. You take your bacilli and monkey and put an insect or two in the gash that you cut. And then let your monkey get sick as a dog, and graft your sick monkey upon a small hog. When the monkey and pig are as one, like a flunky, and the animal's neither a pig nor a monkey, you take your bacilli and bottle the juice and set it aside for the family use. But beware of reversing the process, for then you will find that your monkeys will turn to men. Speak it low; but in Europe on every tongue this dreadful transition is secretly hung. But they do say young students are

time and again, just for the mere sport, turning monkeys to men. And, by George! this bad practice may serve to explain immigration's low grade coming over the main. Alas for our country when this is found out, and sly politicians are looking about for more "blocks of five," and the country's great day is fast in the grip of some medical Quay. Now every village, as dead as the tomb, will leap to the millions with lymph for a boom. In short, this elixir will presently pave every foot of the soil with a cradle or grave.—*Detroit Evening News*.

RECENT MEDICAL PATENTS, &C.—

Atomizer (two patents).....	A. M. Shurtleff.....	Boston, Mass.
Dental Engine.....	H. D. Justi.....	Philadelphia, Pa.
Dental Engine.....	G. W. Nutz.....	Philadelphia, Pa.
Dental Polishing Tool.....	J. D. Ennes.....	Norfolk, Va.
Artificial Head for Dentists' Use.....	H. C. Magnusson.....	Chicago, Ill.
Ointment.....	L. Miles.....	Lawrence, Mass.
Clinical Thermometer.....	C. J. Tagliabue.....	Brooklyn, N. Y.
Truss.....	F. W. Christians.....	Hubbard, Wis.
Clamp-Electrode for Electrical-Dental Apparatus.....	T. S. Wilson.....	Chicago, Ill.
Dental-Engine Hand-piece.....	C. M. Richmond.....	New York, N. Y.
Machine for Sorting Pills.....	W. S. Hubbard.....	Coventry, Eng.
	R. Gibbins.....	Leicester, Eng.
Teeth Separator.....	J. W. Ivory.....	Philadelphia, Pa.

TRADE-MARKS.

Cosmetic. (Monogram composed of the letters "J. W. A.").....	J. W. Angell.....	San Francisco, Cal.
Perfumery, lotions, cream-pate, etc. (The word "Tocco").....	Lady Gray Perfumery Co.....	Boston, Mass.
Insecticide. (The words "One Night Insecticide.").....	Michael & Osmun.....	New York, N. Y.
Perfumed Toilet Preparations. (The words "Scottish Queen.").....	Smith, Kline and French Co.....	Philadelphia, Pa.
Same. (The word "Eskay.").....		
Same. (The pictorial representation of the head and shoulders of Mary, Queen of Scots.).....		
Line of Proprietary Medicines. (The words "Practice My Thers Roden Pa W. N. Trade Sen Mark Vinson of S. Roden & Co., June 26, 1890.").....	V. S. Roden & Co.....	Sand Mountain, Ala.
Remedy for Chapped Hands and Face. (The word "Chap-a-Cide.").....	W. H. Robert, Jr.....	Denison, Tex.

CHARLES J. GOOCH, *Patent Attorney*.

LOCK BOX 76, WASHINGTON, D. C.

DURING March there were reported in New York State 10,672 deaths, being more than 2,000 over the average. There was an average daily mortality of 344; during the two months preceding, 310. In 1890 there was a daily mortality in March of 299, in February, 306, and in January, 398; for the three months in 1890, 334, and in 1891, 321. The extraordinary death rate of January, 1890, was due to epidemic influenza; the recurrence of this disease, in mild form, was reported in the February bulletin, and its height was reached in March. Comparing this month with January, 1890, there were 54 less deaths per day. The percentage of deaths from ordinary zymotic diseases was greater, 11.6 to 8.8, the undisturbed rate at this season being commonly about 14.5; from acute respiratory diseases, 21.7 in March, 31.1 in January, the rate for the first two months of the year being 18.8; from consumption, 12.3 in March, 14.2 in January; from diseases of digestive system, 5.7 to 4.4; of the nervous system, the two months under comparison were alike. The only measure of mortality from the influenza is the increase in that from local diseases, especially these noted, since comparatively few are reported from influenza alone. It is seen that although the mortality is much increased, being not less than 1,000 greater for the month than it would have been but for the occurrence of this epidemic, it still falls short by at least 50 per cent. of the increase caused by it in January, 1890. The typhoid fever endemic of Albany and neighboring

localities has considerably lessened during the month. Whooping cough and measles prevail in numerous localities, and they show a moderate rise in their death rate. Scarlet fever does not continue to increase. The proportion of mortality for all zymotic diseases is considerably diminished because of the increase from the cause noted in all local diseases and in deaths from old age, which latter is especially large. Small pox has disappeared from Jamestown and Nunda, and there is now none in the State.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from April 14, to May 2, 1891.

By direction of the Secretary of War, Lieutenant-Colonel James C. McKee, Surgeon, having been found incapacitated for active service by an Army Retiring Board, is relieved from further duty as attending surgeon and examiner of recruits at Philadelphia, Pennsylvania, and will proceed to his home, and report by letter to the Adjutant-General of the Army. Par. 3, S. O. 96, A. G. O., Washington, April, 28, 1891.

By direction of the Secretary of War, the following changes in the stations of medical officers are ordered: Captain Marshall W. Wood, Assistant-Surgeon, is relieved from duty at Fort Meade, South Dakota, and will report in person to commanding officer Fort Preble, Maine, for duty at that post, relieving Captain William B. Davis, Assistant-Surgeon. Captain Davis, on being relieved by Captain Wood, will report in person to the commanding officer Fort Clark, Texas, for duty at that station. Par. 11, S. O. 85, A. G. O., Washington, April 15, 1891.

By direction of the Secretary of War, a board of medical officers, to consist of: Major Henry McElderry, Surgeon; Captain James C. Merrill, Assistant-Surgeon; Captain W. Fitzhugh Carter, Assistant-Surgeon, is appointed to meet at West Point, N. Y., May 1, 1891, or as soon thereafter as practicable, to examine such cadets of the U. S. Military Academy as have been granted leave of absence until that date on account of physical disability, and to report upon their physical fitness to continue with the Corps of Cadets. Par. 2, S. O. 83, A. G. O., Washington, April 13, 1891.

By direction of the acting Secretary of War, leave of absence for six months on surgeon's certificate of disability is granted Major Passmore Middleton, Surgeon. Par. 4, S. O. 81, Headquarters of the Army, A. G. O., April 10, 1891.

By direction of the acting Secretary of War, the leave of absence granted Captain Henry P. Birmingham, Assistant-Surgeon, in S. O. 39, March 13, 1891, Department of the Columbia, is extended one month. Par. 2, S. O. 81, Headquarters of the Army, A. G. O., Washington, April 10, 1891.

Leave of absence for twenty-one days, to take effect on or about May 1, next, is granted Captain George E. Bushnell, Assistant-Surgeon, U. S. Army, Camp Pilot, Butte, Wyoming. Par. 9, S. O. 49, Department of Platte, Omaha, Neb., April 20, 1891.

By direction of the acting Secretary of War, Major Alfred A. Woodhull, Surgeon, is detailed to represent the Medical Department of the Army at the International Congress of Hygiene and Demography at its meeting in London, England, from August 10 to 17, 1891. He will leave his present station not later than June 1, 1891, and will proceed to London. After the adjournment of the Congress he will return to his proper station. While abroad under this order, and before returning to the United States, he will visit on official business such points in Great Britain as may be deemed necessary by the Surgeon General of the Army. Par. 17, S. O. 91, A. G. O., Washington, D. C., April 22, 1891.

By direction of the acting Secretary of War, Captain William F. Kneeder, Assistant-Surgeon, is relieved from duty at Jackson Barracks, Louisiana, and will report in person to the commanding officer Fort Logan, Colorado, for duty at that post, reporting also by letter to the commanding general, Department of the Missouri. Par. 2, S. O. 88, Headquarters of the Army, A. G. O. Washington, April 18, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending May 2, 1891.

McMURTRIE, D., Medical Inspector. Detached from Navy Yard, New York, and to the U. S. S. "Lancaster."

KERSHNER, EDWARD, Medical Inspector. Detached from Marine Rendezvous, and to the Navy Yard, New York.

HERNDON, C. G., Surgeon. From Naval Hospital, New York, and to the Marine Rendezvous.

GARDNER, JAMES E., Passed Assistant-Surgeon. Ordered to Naval Hospital, New York.

LUNG, GEORGE A., Assistant-Surgeon. Granted two months' leave of absence.

HOEHLING, A. A., Medical Inspector. Detached from Navy Yard, League Island, and waiting orders.

JONES, W. H., Surgeon. Ordered to Navy Yard, League Island.

NORTON, O. D., Passed Assistant Surgeon. Detached from Naval Hospital, Chelsea, Mass., and waiting orders.

CORDEIRO, F. J. B., Passed Assistant-Surgeon. Ordered to Naval Hospital, Chelsea, Mass.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ending April 18, 1891.

BAILHACHE, P. H., Surgeon. To represent the Service at the annual meeting of the California State Medical Society. April 8, 1891. Detailed as Chairman of Board for the Physical Examination of Officers, Revenue Marine Service. April 14, 1891.

VANSANT, JOHN, Surgeon. Detailed as Chairman of Board for Physical Examination of Officers, Revenue Marine Service. April 14, 1891.

AUSTIN, H. W., Surgeon. Detailed as Chairman of Board for Physical Examination of Officers and Candidates, Revenue Marine Service. April 14 and 15, 1891.

GASSAWAY, J. M., Surgeon. Leave of absence extended five days. April 15, 1891.

STONER, G. W., Surgeon. To proceed to Alpena, Mich., on special duty. April 12, 1891.

McINTOSH, W. P., Passed Assistant-Surgeon. Detailed as Recorder of Board for Physical Examination of Officers, Revenue Marine Service. April 14, 1891.

MAGRUDER, G. M., Passed Assistant-Surgeon. Detailed as Recorder of Boards for Physical Examination of Officers of Revenue Marine Service, April 15, 1891.

PERRY, T. B., Assistant-Surgeon. Ordered to examination for promotion. April 6, 1891.

WOODWARD, R. M., Assistant-Surgeon. Ordered to examination for promotion. April 6, 1891.

GOODWIN, H. T., Assistant-Surgeon. Ordered to examination for promotion. April 6, 1891.

VAUGHAN, G. T., Assistant-Surgeon. Ordered to examination for promotion. April 6, 1891.

GEDDINGS, H. P., Assistant-Surgeon. Detailed as Recorder of Board for Physical Examination of Officers and Candidates, Revenue Marine Service. April 14, 1891.

PERRY, J. C., Assistant-Surgeon. Detailed as Recorder of Board for Physical Examination of Officers, Revenue Marine Service. April 14, 1891.

GROENEVELT, J. F., Assistant-Surgeon. To rejoin station (New York). April 13, 1891.

ROSEMAN, M. J., Assistant-Surgeon. To proceed to Cairo, Ill., for temporary duty. April 13, 1891.

TO CONTRIBUTORS AND CORRESPONDENTS:

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

Address all communications to 1725 Arch Street.

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Whole No. 652.

	PAGE		PAGE		PAGE
CLINICAL LECTURE.					
MONOMANIA. By James Hendrie Lloyd, M.D.	401	Can the Gynecologist Aid the Alienist in Institutions for the Insane? Stone . . .	412	Transactions of the New York State Medical Association for 1890. Ferguson . . .	418
ORIGINAL ARTICLES.					
ACUTE PRIMARY PNEUMONIA. By T. G. Stephens, M.D., Sidney, Iowa	404	A Certain Class of Obstetric Cases in which the Use of Forceps is Imperatively Demanded. Clark	413	Fever: Its Pathology and Treatment by Antipyretics. Hare	418
REVIEW OF PROGRESS IN MEDICAL AND SURGICAL ELECTRICITY. By W. R. D. Blackwood, M.D.	406	The Clinical Teaching of Obstetrics in America. McKee	414	Practical Notes on Urinary Analysis. Canfield	418
SOCIETY NOTES.					
AMERICAN MEDICAL ASSOCIATION . . .	408	The Treatment of Accidental Abortion. Brown	414	THE MEDICAL DIGEST.	
The Restoration of the Pelvic Structures After Injury. Marcy	408	A Report of Ten Selected Cases of Laparotomy, with Remarks. McIntyre . . .	415	Hydrastis in Phthisis. Palmer	416
Thirty five Specimens of Ectopic Gestation Removed Post-mortem. Formad . .	408	Joint Reflexes Consecutive to Pelvic Inflammation. Potter	415	A Modification of the Langlebert Horand Bandage in the Treatment of Orchitis and Epididymitis. Martin and Wood . . .	419
The Pathology and Treatment of Chronic Ovaritis. Skene	409	The Prevention of Puerperal Convulsions by the Induction of Premature Delivery. Fry	415	Abortifacient Pneumonia. Rossiter . . .	419
My Fourth Conservative Cesarean Section. Kelly	409	Spasmodic Stricture of the Urethra Following Labor. Elhot	416	Castration. Riley	419
The Use of Cocaine in Gynecological Surgery. Humiston	409	Laparotomy, with Report of Cases. Branham	416	Test of Purity for Phenacetine. Am. Jour. Pharm.	419
Minor Uterine Surgery. Baldy	409	Papillomatous Cystoma of the Ovary, with Report of a Case. Walker . . .	416	Iodoform Gauze in Post-partum Hemorrhage. Velitz	419
A Contribution to the Normal and Pathological Histology of the Tubes. Williams	409	A Study of Infection Through the Drainage tubes. Robb	416	Treatment of Condylomata. Waldo . . .	419
Report of a Case in which a Child's Arm Became Engaged in the Fenestrum of the Obstetric Forceps. Millikin . . .	409	The Treatment of Posterior Face Presentations. Bernardy	416	Menthol in the Local Treatment of Erysipelas. Benedict	419
Celiotomy (Abdominal Section) for Rupture of the Parturient Uterus. Coe . . .	410	Pyoktanin as an Antiseptic. Boldt . . .	416	Prolapsed Funis. Emery	419
The Use of Vaginal Tampons. Sellman .	410	A Case of Obstetrics, Followed for Months by a Daily Discharge of Over Two Quarts of Watery Fluid Through the Cervical Canal. Bradshaw	416	Operation for Peritonitis. Ross	420
The Electrical Treatment of Fibroid Tumors, with an Analysis of Forty six Cases. Massey	410	EDITORIALS.		FRENCH NOTES. Roussel	420
The Relation of Displacements of the Abdominal Viscera to Pelvic Disease. Kellogg	411	MEDICAL EDUCATION		Remedies for Pertussis. Boas	420
Suggestions as to Abdominal and Pelvic Surgery. Walther	411	ANNOTATIONS.		The Treatment of Tuberculosis by Artificial Atmospheres Under Pressure. Selé .	420
The After treatment of Cases of Abdominal Section. Noble	412	Death of the Leidy Brothers		Galvano-caustic Treatment of Hypertrophy of the Prostate. Bottini	421
		City Hospital Examinations		Physiology and Pathology of the Anal Reflex. Rossolimo	421
		Professional Distress in England . .		Treatment of Acute Coryza. Tissier . .	421
		BOOK NOTICES.		Constipation. Lutard	421
		The Three Fates. Crawford		MEDICAL NEWS AND MISCELLANY.	
		International Clinics. Keating, Griffith, Bruce, and Finlay		ARMY, NAVY, AND MARINE HOSPITAL SERVICE	
				NOTES AND ITEMS	

Clinical Lecture.

MONOMANIA.

By JAMES HENDRIE LLOYD, M.D.,

Visiting Physician to the Nervous and Insane Department of the Philadelphia Hospital.

GENTLEMEN:—As I told you last week, general paralysis of the insane is the one insanity which has a definite pathology. It is a disease or degeneration of the cortex and other elements of the brain, which can be demonstrated by the knife and the microscope. It is the form of insanity which is distinguished by that one fact.

To-day, I speak of a form of insanity which is not marked by a definite pathology—monomania.

We know of no pathology, in the sense of a characteristic degeneration or change of cells, which can be demonstrated in this disease.

Ever since the time of Hippocrates, the word melancholia has been used to designate a certain kind of insanity. The word means *black bile*, on the presence of which the condition was supposed to depend. For a long time, then, the word melancholia has been used. It designates a certain broad class of the insane, marked by sadness, depression of spirits, and by the fact that the patients are more or less only partially insane. They are not raving maniacs, but have some control of the mind, and are insane on a few separate ideas or trains of ideas; they are partially insane. The word has been used in that sense to our own day. In the early part of this century Esquirol, a French writer, made a further subdivision of insanity. He saw that a number of the insane have insane ideas only on a few points, but

are not truly melancholy. He devised the word monomania, meaning insanity on one subject. He further observed that monomaniacs are of two kinds; they are the monomaniacs who are sad (the old melancholics), whose thoughts run on depressing ideas, and the insane who are more or less exalted, who have exalted ideas of their own importance, entirely different from the sad feelings of the melancholics. Those who are depressed were called lypemaniacs, and those who are exalted were called monomaniacs. These are the insane who are not raving maniacs, they are only partially insane; that is to say, they are often insane on very few ideas; they are the lunatics who, on most subjects, could talk as rationally as you and I. They are, moreover, the insane who can conceal their insanity. They supply nearly all the material for medical jurisprudence. They are the insane who are leaders of wild religious movements, who think themselves called upon to perform some great commission, who believe that they are emperors and kings; further than that, they sometimes think themselves divine beings. This class, the monomaniacs, are marked especially by this one characteristic—that they have systematized and fixed delusions. In general paresis the patients have unsystematized and unfixed delusions. A fixed delusion is one that persists—the same yesterday, to-day, and sometimes during the whole life. It is one which coheres in all its parts; it is a well rounded out idea, established on a false basis or premise, but logically followed out to all its conclusions. For instance, here is a man who believes he is Jesus Christ; or, here is a woman who believes that she is the inventor of some great and useful instrument. That man or woman entertaining that belief, works on it, just as you would if

you believed it—just as you would if it were so. The monomaniac does the right thing, but on the wrong premise. The patent office is so troubled with such people, who think they have discovered machines for perpetual motion, that they have printed circulars to send to them, explaining that perpetual motion is impossible.

Again, monomania has certain other characteristics in its worst classes. For instance, two symptoms which are found in some, though not all, of them, are the so-called hallucinations of hearing and sight. They are not uncommon in the insane, and are not confined to monomania.

A hallucination is a false sensorial belief. A man hears the voice of a friend or of God; that is an aural hallucination; he does not really hear the voice. The insane shut up in our wards hear the voices of persons speaking to them. Very often these voices are extremely irritating or offensive, calling opprobrious names; calling upon them to commit vulgar outrages or criminal acts. These are the hallucinations which often impel the patient to act, and constitute an element of danger in this class. These aural hallucinations are the most common.

Next in importance are the hallucinations of sight. The patients see things which do not exist. They are simply subjective disorders of the cortex of the brain.

Again there are tactile hallucinations. I recollect an old colored man, in this hospital, who thought he was entirely encased in a web—a sort of serpent's skin—and it was extremely annoying to him. Sometimes these hallucinations are evidently founded upon disordered sense impressions. I believe the colored man had some form of anæsthesia or paræsthesia, due to a central derangement which he misinterpreted.

We have also hallucinations of smell and taste. These are not very common, however. The patients say their enemies put disgusting things in their mouths, etc.

To resume again the historical aspect of the subject. After the French had made this broad distinction, critics said, "There is no such thing as a man insane on one notion only." That is true. These patients are not insane on one notion only; they usually have trains of wrong ideas. The word is only approximately correct. The Germans, taking up the subject, demonstrated the fact that these monomaniacal ideas, these systematized delusions, are apt to occur in certain types, which we call the neurotic, hereditary, or the degenerative types of the human race. In other words, they are established on a constitutional or hereditary basis. They are, therefore, most positively of all the insane, the hereditarily insane. Broaden your ideas and take in this one thought. This hereditary tendency or ground-work for insanity was named by the Germans *primäre verruchteit*, a term which means a constitutional twist in the individual; a tendency to see things in the wrong light; a tendency to form delusional ideas. It was a valuable generalization, because it broadened the subject out and gave a firmer grasp upon it. More recently these insane have been called *paranoïacs*, a term which you will probably see henceforth more frequently in the books and journals. There are many varieties of them, according to the extent of their inherited deficiencies and their individual peculiarities. Nature does everything by degrees, nothing *per saltum*, or by fits and starts. Hence we see this broad class including all grades, from the most confirmed delusional monomaniac to the man whose oddities interfere neither

with his capacity for success nor with his moral responsibility. This class has many individuals who are on the border-line between health and disease; who go through life as well-recognized "cranks;" who do eccentric, troublesome, even criminal acts. Here the connection between criminality and insanity comes in; here the long fight on the subject of the insanity of Guiteau occurred. He did not have any positively systematized delusions; but he had erroneous, extravagant, delusional ideas; not going so far that it could be demonstrated incontestably before a jury that he had systematized delusions. While he had relatives in insane asylums, yet his own insanity was not allowed, partly because of popular passion. These cases sometimes begin very early in life. They are troublesome and wicked, and give us many instances of juvenile crime. They are those who set fire to buildings, and are called juvenile pyromaniacs and moral imbeciles.

Some cases which will puzzle you as practitioners are the cases of "insanity of doubt," as the French call them, *Folie du doute*.

Some years ago I was called to see a lady who had been brought on from New Orleans to be placed in a Philadelphia asylum. She was a case of this insanity of doubt. She came of a bad family, but had never been insane herself. She had always been nervous, hysterical, hypochondriacal, full of morbid impulses and delusional ideas, which were just on the border line of insanity, which were beginning to form into systematized delusions. This woman, for instance, would have such a notion as this: On going to bed she would think her skirt had not been taken off right, and would put it on again; this she might repeat forty times. At last she would get into bed, and thinking the gas was not out in the parlor, would oblige her husband to arise many times in the night to see that it was out. Such people are called fools, but it is not folly when it is in your own household. This patient was on the border line of monomania; was one of those constitutional, hereditary, twisted sticks. There was a family history of insanity, and her father had been a hard drinker. We see this class often dove-tailed in with that of a literary and artistic character. Some say that the world has been made a great deal better by some of the monomaniacs. If you look into the history of art, science, and letters you find not a few examples of genius flourishing in this soil of paranoia.

The insanity of doubt is instructive also, because it is allied to some morbid mental processes which lead sometimes to criminal actions. When such a patient infringes the law it is often hard to demonstrate the insanity. For instance, we see some patients with "imperative conceptions," as they are called. One man told me that whenever he shaved he had an impulse to kill his wife. His mental health was otherwise good, and he had no motive for such a crime, from which he shrank with horror. He was so distressed about it that he sought medical advice. A case is given by a French writer of a woman, just confined, who had such an impulse to kill her child, and begged to have the child removed from her. She conceived this idea from reading of the trial of a woman for a similar crime.

Here is a man who gives you a very good demonstration of how a monomaniac will assert himself. He becomes angry just as you would if I said you had an insane idea. Although he has been in this hospital for two years, he believes he owns sixty-four houses, and when I bring him before you, and say he

has a delusion, he defends that delusion, even to the extent of threatening me with voice and gesture.

As to the pathology or morbid anatomy of these cases they have no distinct morbid anatomy or pathology. What they do have is this. Being constitutional, and founded on original faulty development they sometimes show certain peculiarities in the formation of the brain, such as asymmetry, reversion to lower types, etc. They develop asymmetrically, and these errors of development and conformation of convolutions show that these troubles began away back at the earliest period of embryological life. These monomaniacs depend on an original faulty development. They are primarily insane, but there is another class of the insane, who have delusions, who are called the chronic insane, and may be confounded with the monomaniacs. Some of the English still refuse to recognize these monomaniacs as anything more than the chronic insane. The chronic insane are those who, having gone through attacks of acute insanity, as delirium, mania, or melancholia, have the mind gradually shattered by these repeated storms which pass over it. They have delusions which are not so well systematized as are the fixed delusions which we have in monomania. They do not constitute, as a rule, the criminal class. They are usually talkative, and will dress themselves in all sorts of fancy clothing, if you let them do it, but have not the well systematized delusions of monomaniacs. Even the latest English writer gives monomania as simply chronic insanity. This woman illustrates this point. You observe, as she talks, that there is no coherence of ideas. She is not a case of monomania, but a case of chronic insanity, who has gone down through successive periods of maniacal excitement. She tells you that her child was killed this morning before she came here. She has a child killed every day. Now a monomaniac has a fixed and logical delusion. He would know that he could not have a child killed every morning, and would not talk about it in a laughing, flippant manner before you, as this woman does. She has not a fixed or systematized delusion.

There are different types or classes of monomanias. They are all the same disease, but different types. First, there is the monomaniac with broad delusions of grandeur. These are the patients who believe that they are some exalted personage; they believe that they have done some great thing which entitles them to large reward from the Government; they believe they are inventors. Here is a man who has a delusion of exalted personality; he believes he is Jesus Christ. That is not an uncommon form; but a more interesting class of a higher type of mind are those who believe that they have been great benefactors. We have such a woman in the hospital, fifty years of age, who has applied for and received from the Patent Office, at Washington, these regularly issued patents which I show you. They have recognized her in Washington as an eccentric woman, whose patents are of little, if any value; but she has paid her money for the patents, and has received them. We are told by Clouston of an insane man in Edinburgh, who invented a panacea for the ills of mankind; when out on parole he sold this stuff for a shilling a bottle to the sane citizens of Edinburgh, showing that he had more sense than they. This woman has invented several useless articles of wearing apparel, from which inventions she thinks she ought to receive a large annual income. She is perfectly coherent, and so reasonable in some things that some sane people think she is improperly incarcerated here. She writes a

great many letters to the authorities, but in other respects is perfectly sane, and is not a little inclined to conceal her delusion. Had we brought her here this morning, we might have had a disagreeable scene.

Monomaniacs with ambitious schemes are another type. They force themselves into public notice, and seek interviews with prominent persons; if not treated with consideration, they become resentful, and perhaps dangerous. Guiteau was of this class.

Next, we have delusions of persecution and insane suspicion. There lies now in Moyamensing prison, a man under sentence of death for killing a jeweler in this city. He is a well-marked case of delusional insanity, or monomania. I have examined him several times. He believed people were after him to poison him; that his wife was unfaithful to him; that she would admit her paramours into her house while he was sleeping there. He made murderous assaults upon his wife and children, and ended by casting her into the street. He had impracticable ambitious schemes, which led him into pursuits which he could not carry out. He one day took a \$2.50 watch to a jeweler, and found fault with him because the watch would not go like a first-class instrument. Being ejected from the shop, he whipped out a pistol and shot the jeweler dead. This is an instance of a monomaniac resenting interference and avenging wrong. One of the most interesting cases of this kind was James Hatfield, who shot at King George III in Drury Lane Theatre, and who illustrated the fact that monomania may be ingrafted upon a traumatic, as well as an hereditary basis. He had received many wounds in battle, one of which had penetrated the brain, and left it exposed. Immediately after his recovery, he began to exhibit delusions. These eventually led him to shoot at the King in the theatre. His case was the occasion of one of the most brilliant pieces of forensic eloquence in the history of medical jurisprudence. In that speech, Erskine brought out that systematized delusion was the basis of the insanity, and on this point alone acquitted his client. These cases then are of great importance, because they constitute the vast majority of the criminal insane.

One of the most dangerous of these delusions of persecution is the delusion of marital infidelity. We had in this hospital a marked case. I remember seeing the patient in his own house, walking up and down in front of the door, keeping guard, neglecting his work, leaving his family to starve. He would at night fix feathers between the door and jamb, and fix sticks in certain ways, so that if the doors were opened the sticks and feathers would tumble down. He did this under the influence of the delusion that his wife was unfaithful, and admitted her lovers. When he arose in the morning, although sleeping alongside of his wife all night, if he found these feathers disturbed and sticks tumbled down, his delusion was confirmed. Under this delusion he became extremely dangerous; the wonder was that he did not injure his wife. He was brought here and kept for some years, when his eldest son came and took him away. I consider that woman's life in danger as long as the man is allowed to live with her.

The monomaniac sometimes transforms his delusions, or develops new ones from his environment. Thus a paranoiac with ambitious schemes, being placed in an asylum, forms a delusion that he is the victim of a conspiracy, or *vice versa*; a monomaniac with delusions that he is poisoned or otherwise persecuted concludes after awhile that he must be some great personage. This is one of the distinctions between monomania and melancholia; the melancholy

patient has always a sense of personal unworthiness, and does not transform his delusion into one of personal grandeur.

One of the other types of delusions, is the delusion of unseen agents; the delusions that unseen people or agents are acting on patients, sometimes by means of electricity. One of the most peculiar of these delusions of unseen agency was that of a man confined in the Pennsylvania Hospital for the Insane, who believed that some man had robbed him of his personal identity, and, getting out, he spent a whole day in tramping over the city hunting for that person. Had he found him no doubt he would have assaulted him. A few years ago I had in my employment a colored boy who drove for me. Seeing the students coming to this hospital, he gradually formed the idea that they were seeking him and wanted to cut him up. He bought a pistol, and carried it with him continually, so that he might defend himself. I had no knowledge of his delusion at that time. He left my service, and a short time after was confined in an asylum. He became very insane, and died of phthisis. This was an instance of a delusion being formed by environment.

A hypochondriacal delusion is one which is based upon some disordered sense; a disordered feeling in the patient's own person, from imagination or from disease; thus we hear of a patient who had a delusion of a snake inside of him, which, on examination, was found to depend on a cancerous tumor. These are delusions arising from some substantial basis. The hypochondriacs usually have some delusional idea about their own health. A marked example of this hypochondriacal monomania is this patient, whom I have only time to allude to briefly. He is one of those rare cases of self mutilation which we occasionally read about, but seldom see. He believed that his strength was wasting away by seminal emissions. To prevent this he emasculated himself with a razor. He did this in two operations, taking one testicle out first, and then in three months the other. He almost bled to death after one of these desperate assaults upon himself. It is to be noted as very significant that instead of being cured of his delusion, he is rather confirmed in it, and asserts that there is something yet which ought to come away. What that can possibly be I do not know.

Original Articles.

ACUTE PRIMARY PNEUMONIA.

By T. G. STEPHENS, M.D.,

SIDNEY, IOWA.

THE literature of medicine, as well as that of the collateral sciences, have made rapid strides during the last half century. The treatment of many diseases, especially pneumonia, has been entirely revolutionized; but there is to-day less consensus of opinion as to its treatment, than there was during the period when methods now antiquated were employed. It frequently happens that a certain course of treatment for a disease, which to one person, and in some circumstances, seems peculiarly appropriate; to other persons, and in different circumstances, appears very differently, although the same pathological conditions present themselves to all. Pneumonia is not so general a disease as typhoid fever, which is known to every civilized portion of the globe. This is not the case with pneumonia. Oregon, in the same latitude

as New England, is said, upon good authority, to be entirely exempt from inflammation of the lungs, and directly south of Oregon is California, which also enjoys a singular immunity from the disease. Pneumonia is said to be rare in Egypt, in the same latitude as Florida, although Hippocrates spoke of it several hundred years before the Christian era, but does not mention to what extent it existed. He may have seen but few cases in his long and successful practice. Pneumonia occurs in various forms, as well as in different degrees of intensity, causing it to be known by various names, some of which are "lung fever," "broncho-pneumonia," "pleuro-pneumonia," "croupous-pneumonia;" all implying the same disease. The compound words broncho-pneumonia and pleuro-pneumonia are much more descriptive in their signification than any of the rest. Broncho-pneumonia is most common at the two extremes of life. In pleuro-pneumonia the cedema is sometimes so great as to produce so much pressure against the ribs as to destroy the friction sound; all motion except expansive being stopped. The term croupous-pneumonia has no satisfactory etymological meaning, the phraseology being ambiguous, but ambiguity sometimes becomes fashionable, and finds its way in our standard writers, although conveying false impressions. Croup, according to Professor Da Costa, means laryngitis plus spasm, and having a tendency to form membrane. Meigs and Pepper say that the term croup signifies an acute inflammation of the mucous membrane of the larynx, attended with the exudation of false membrane.

Croup has a spasmodic element in every case, whilst pneumonia is the reverse; the audible symptoms are different. If the pulse is reduced in pneumonia the patient breathes freely, but in croup it does not have that effect. No false membrane ever forms in the air cells or bronchioles, but an effusion, hence there can be no identity between the diseases. False membrane is not found in the bronchioles and air cells, except when it is continuous with a similar adventitious structure in the trachea.

Acute primary pneumonia is an inflammation of the respiratory portion of the lung, the lining membrane of the air cells and bronchioles; the vessels of the part become the seat of stasis, and from them an inflammatory effusion takes place through the epithelium of the air cells, rendering the part impervious to the ingress of oxygen and the egress of carbonic acid gas in consequence of the filling of the alveolar with the products of such inflammation. This effusion, which is the result of stasis, amounts to more in some cases than others; the lung is frequently so distended with it as to push against the ribs with such force as to leave their impression, even the intercostal spaces are obliterated. In these cases, as soon as the stasis is removed, the blood begins to circulate naturally in the tissues of the vessels again. Enough blood is always effused from the rupture of the capillaries to stain the contents of the air cells. The patient coughs up what has been formed, and some that has collected in the bronchial tubes. Pneumonia is nearly always unilateral, the majority of cases commence in the inferior lobe of the lung near the bottom, and diffuses until it involves its entire inferior portion, and afterwards extends to the middle and superior lobes. It may confine itself to only one lobe, or pass the septum of the lobes and attack the next, and so on until the entire lung is involved. The right lung is the one affected in the majority of cases, and the inferior portion, but the disease commences sometimes in the superior lobe and descends. This is most common

in aged persons, and those of feeble constitutions. In these cases the sputa is not likely to be stained with blood. As a rule, pneumonia only affects one lung at a time, but then we occasionally have it double.

When the inflammation has reached its height the air cannot enter the part which has been disabled, as it is entirely filled with material which has just been consolidated, the lung increasing in specific gravity, sinking like muscle when thrown into water, whilst healthy lung floats. The nerves of the lungs are derived principally from the par-vagus and great sympathetic, and the pain is obtuse as long as the disease remains on the interior portion, but becomes acute when it reaches the pleura; pneumonia, unlike many other diseases, leaves no anatomical lesions in the lung. The first invasion of pneumonia is a rigor, except in drunkards and feeble persons, which may last from a few minutes to several hours before reaction. Pathologists have divided pneumonia into three stages, more are occasionally mentioned, but not generally recognized. The first stage is that of *engorgement*, where the lung becomes œdematous by the gradual filling of the air cells with a semifluid which plugs them up; these cells or alveolæ are quite numerous, six hundred millions in all, and vary in size from $\frac{1}{80}$ to $\frac{1}{70}$ of an inch in diameter. If the stethoscope be applied to the chest at this time we will get the crepitant râle, the first physical sign of pneumonia, which is a crackling sound very much like that produced by the explosion of common salt when thrown upon a hot surface, and is almost pathognomonic of the disease, and is heard only with the act of inspiration, and is produced within the air vesicles and bronchioles. Subcrepitant râles are not infrequently intermingled with the crepitant, and are heard in the bronchial tubes either with inspiration or expiration, or with both acts during the resolving stage of pneumonia. As to the mechanism of these râles there is nothing definite, but the word expresses the characteristic symptoms of air being collected in the cellular membrane of the body. The two leading theories, according to Walsh, are:

1. That it may be produced by air and the viscous exudation meeting in the pulmonary vesicles, and
2. That it is due to the expansion of the parietes of the vesicles previously agglutinated together.

This sound can be heard until complete consolidation of the material in the air-cells and bronchioles, when the admission of air ceases and we get no more bronchial breathing.

From the time the effusion commences in the first stage we have gradual diminished resonance or dullness, which denotes the proportion of liquids or solids over the air within the chest is greater than in health, which condition remains until these plugs are gradually softened and removed by expectoration and absorption. In the second stage of pneumonia-hepatization, we have dullness on percussion and no râles at all, except in the bronchial, which cannot be mistaken for the pneumonic, as they are always double, whilst in pneumonia they are single. In the third stage, *resolution or purulent infiltration*, the râles return, but not as they have been, but are crepitant and subcrepitant all mixed together. The course of primary pneumonia is usually acute, and tends to terminate favorably by a crisis occurring from the third to the tenth day, or at a later period. Amongst the most notable phenomena in the commencement of pneumonia are accelerated respiration and dyspnoea, and the decubitus is generally dorsal. These phenomena are generally followed by pain in the side, cough, bloody expectoration, excessive nervous sen-

sibility to light, great prostration of the system, and on physical examination we get slight or moderate dullness over the affected lobe, and generally the crepitant râle. The fever arises rapidly after the chill, the temperature varying slightly, according to the remission and exacerbation. Pneumonia is a disease not attended with a very rapid pulse, except in fatal cases, then it is toward the end. The tongue is slow about becoming dry, except in cases of a typhoid type; the expectoration in these cases is almost characteristic of the disease. It is the emptying of the air cells; at first it is viscid, adhering to anything upon which it is spat; one sputa adhering to another, making a pretty uniform and semitranslucent mass. As a rule, you can see the bottom of the receptacle through it, although containing colored matter intermixed resembling brick dust, but not to that degree as to destroy its translucency. Delirium is not infrequent in pneumonia, and occurs earlier and oftener in badly ventilated apartments where the hygienic conditions are faulty. In the early part of the disease it is not to be regarded as a serious complication, but late in this affection it augurs unfavorably.

When one lung is so obstructed that the blood circulates with difficulty through it, there is danger of the opposite one becoming affected in the same way. The circulation of the diseased one will cause a large flow of blood to what we call the well one. "As to the pathogenesis of acute primary pneumonia, two opposite theories have been advanced respecting its origin, both of which are supported by certain facts and opposed by others: (1) That pneumonia is a specific fever, of which the disease in the lung is only a local effect. (2) That it is purely a local disease, of which the pyrexical and other phenomena observed are only immediate consequences."—(*Wilson Fox, F.R.C.P.*) Pneumonia is always most prevalent during that portion of the year when there are the greatest changes of temperature, and it is immaterial about its severity. February, March, and April, in this latitude, are, upon the whole, the most favorable to its production. All statistical writers notice the severe cutting winds. Hippocrates alludes to the frequency of chest disorders during the blowing of northeast winds. Long decumbence in bed, the stasis of the blood in those parts of organs which are kept for a length of time in one position, has a tendency to favor inflammation. Age is an important factor in the causation of pneumonia, as well as one of the conditions most influencing its mortality. As to the sex, when the conditions of life are equal the proportionate difference is not very great, but, their occupations being different, the males being more exposed, we get a ratio of about two to three. The correctness of a constitutional predisposition, the profession is not well agreed, as it is supposed by some that those of a vigorous constitution are more apt to be attacked than those in bad health. We are aware that vigorous persons are more apt to be exposed than those of a more delicate constitution. Several diseases act as a predisposing cause when there is a constitutional susceptibility.

It has been asserted that there has been a change of type in pneumonia; but there is no logical proof. After becoming familiar with the pathology of pneumonia, and the effect of the circulation of the blood on the inflamed lung, it is not difficult to arrive at a rational mode of treatment. Coustani makes the statement that in view of the fact that fever is caused either by diminished irradiation or by increased calorific productions, the most rational treatment will

be directed, not toward the dispersion of the heat, but toward its increased production. The heart has no rest except during the diastole. All the blood in the body must pass through the lungs, after reaching the heart, before it can be again distributed; in health it makes a complete circuit every twenty-four seconds, and an entire rotation in two minutes, being subject to changes from morbid influences. In order to treat these cases successfully, the functional activity of the lung must be diminished, which is done by remedies directed to the heart and nervous centers, producing as much rest as possible for the diseased organ. The more blood sent to the lung the more the respirations are accelerated, and the greater the dyspnoea. If we have an inflamed point or eye to treat, we want immediate and absolute rest. In pneumonia a considerable portion of the lung performs its duty imperfectly, and the greatest good is done in the first stage of the disease by cutting its course short and preventing complications, for which purpose we have a remedy that seldom disappoints us—*veratrum viride*. This remedy, unlike many of the leading antipyretics, does not leave any evil after-effects. The antithermal action of *veratrum viride* depends altogether upon its sedative action and consecutively on the action of the muscles of the heart, lessening the force and frequency of the pulse rate through the pneumogastric or *pns-vagus* nerve (second division of the eighth nerve), which is connected with the sympathetic system by numerous delicate filaments of communication received from the cervical ganglia. By energetic treatment the frequency of the pulse and temperature is reduced, the case shortened, and convalescence hastened. The majority of my patients have improved by the third day.

In the second stage of pneumonia we cannot expect that the medicine will have so decided an influence over the circulation and solid parts; but even there it will diminish the force of the heart and arteries, and so tend to prevent the extension of the inflammatory process, cutting short the period of crisis. The reduction of blood pressure must not be made too suddenly and in excess, a gradual reduction being better. The medicine is not accumulative in its action, nor has any bad effect on persons suffering from chronic diseases. For the physiological action and therapeutic uses of *veratrum viride* more fully, the reader is referred to my article in *Gaillard's Medical Journal*, Vol. LII, No. III. The following are very convenient formulæ when the slowing of the circulation is required:

R. — *Tincturæ veratri viridis* (Norwood's),
Vini *ipeacuanhæ*,
Sp. *ætheris nitrosi*.....āā ʒj.—M.

Or:

R.—*Tincturæ veratri viridis* (Norwood's),
Syr. *scillæ* co.,
Syr. *tolu*.....āā ʒij.

M.—Sig. Give in any convenient vehicle every four hours in ascending doses. Commence with twelve drops and increase two or three each dose until complete defervescence, or the pulse reduced to its normal beat or a few strokes subnormal, then the time may be prolonged and the medicine given in descending doses, decreasing in the same ratio that it was increased.

If the medicine is not continued in this way after the circulation of the blood has been reduced, there is danger of losing its antithermal effect.

REVIEW OF PROGRESS IN MEDICAL AND SURGICAL ELECTRICITY.

By W. R. D. BLACKWOOD, M. D.

ELECTROLYSIS IN LUPUS VULGARIS.—Dr. G. T. Jackson, of New York, believes that because of its painlessness and slight loss of blood, together with the lack of deformity after the operation, and the ability of the patient to follow his business uninterruptedly, this plan is desirable. Little scar is left, and with him the results have been better than under any other method.

Electric Breast-pump to Provoke Labor Pains.—Freund advocates the application of the cathode to the mammary gland to induce uterine contraction during parturition, the anode going to the abdomen. Five to seven milliamperes are suggested, and good results were had in two cases. The same effect has been attained by myself frequently with a small induction apparatus, which is more portable, and simple contact over the abdomen was quite effectual in all instances. The pole (either) may be introduced into the vagina in contact with the cervix—the other over the abdominal parietes; make and break the circuit rhythmically.

Galvanism in Gynecology.—Engelmann, of Kreutznach,² believes that a retrograde metamorphosis in fibroid tumors is seldom had under galvanism (Apostoli method); at least enough of it to show sensible diminution in size; endometritis is benefited; hemorrhage and leucorrhœa disappear; pressure symptoms are relieved; reflex neuroses disappear; and he thinks the method valuable as an adjunct to other plans. In twenty cases in my own practice, during the last seven years, eleven have undergone diminution of the mass of not less than 60 per cent., in the opinion of physicians who previously had charge of the women; four show no lessening of bulk, but all hemorrhage and reflex trouble are entirely gone in these instances; the rest have shrunk from 10 to 15 per cent., as nearly as can be made out by measurement of the mass, both internally and externally. More than half of these women were condemned to death by laparotomists should they dissent from section; but they are now past the menopause, and are practically cured. One of those who was thoroughly relieved of all symptoms which had previously troubled her, and whose tumor was—by her own testimony, that of her dressmaker, and her physician, together with myself—reduced fully one-half, and who was quite comfortable, to say nothing of her being liable to actual danger of life, was coaxed by a surgeon to undergo section, and she died the next day after the operation, a victim to just as sheer quackery and unprofessional conduct (for she was urged to submit behind my back and without the consent of either her family doctor or myself) as could happen to any one in the clutches of a Buchanan or Paine graduate. Properly selected, many cases, I am sure, will recover without section by the use of *strong* currents, not less than 250 to 600 ma., but extreme care is demanded to localize the electric energy and to have no break of the flow, for in applications of quite low power I have had faintness and troublesome depression in nervous persons through accidental make and break whilst treating some abdominal malady. It is entirely within the power of a current of 200 ma., or upward, to kill, or at least seriously injure, a delicate woman, if the abdominal sympathetic is brought

¹ *Centralblatt für Gynäkologie.*

² *Deutsche Med. Wochenschrift.*

under the influence of a high "extra current," such as ensues when energies of the rate alluded to are interrupted or reversed without rheostatic interposition.

Noeggerath is disposed to decry the use of Apostoli's method altogether.¹

In curious relation to this attitude he recommends faradism, as curative in proliferous multilocular ovarian cysts. In my own experience, faradism has been of absolutely no use at all in discussion of any kind of cyst. His plan of applying the current by a sponge within the vagina is a very crude one, and the direction to use the negative in induction currents is questionable when we know that there is no polarity, accurately speaking, in medical coils, the current being rapidly alternated by the rheotome. Galvanism will, in some cases, obliterate cysts, just as it does varied tumors; but faradism is practically useless.

Galvanism in Uterine Cancer.—Wernitz employs from 100 to 200 ma. by puncture, the negative causing sloughs within twenty-four hours. If hemorrhage is present, the positive is applied to the growth. Daily séances are held. Pain is lessened by this plan, and in several instances not otherwise amenable to operation, very good results were obtained.²

The Production of Cutaneous Electric Currents in Man.—This was the subject of an address by M. Tarchanoff at a meeting of the Biological Society, of Paris. The studies were made by means of a very sensitive galvanometer, together with a special device for preventing spontaneous movements. The electrodes being in position, the production of cutaneous currents was determined under the influence of the most various excitations—a call in a loud voice, a shock, etc. The psychical sensations of heat and cold suggested to the subject determined extremely delicate reactions of the galvanometer. When the left hand was in contact with the electrodes, and it was suggested to the subject that his right hand was warm and commencing to perspire, no effect was observed; but when the left hand was spoken of, a considerable deviation of the needle of the instrument at once occurred. Here was an electric discharge of purely psychical origin which might, to a certain extent, be compared to the discharge of a torpedo. In prosecuting these experiments it was necessary to choose regions rich in sudoriparous glands. These glands play a notable part in the production of the cutaneous currents. A person in a state of expectant attention causes the needle to oscillate incessantly. It is necessary, before beginning the experiments, to secure the utmost tranquility in the subject, in order to determine the zero of the galvanometer. Another example forcibly demonstrates the effect of mental effort. An easy act of multiplication produces no result. But if a person is asked to perform a difficult problem of the same kind, the needle is deflected in proportion to the difficulty. Muscular movements give rise to deviations which must be attributed not merely to the acts themselves, for the effect is disproportionate, but to the effort of will which they necessitate. The deviation is, in fact, greater when the subject looks at the tip of his nose than when he raises his arm, even if some degree of force be used. Fatigued persons produce no reaction. M. Tarchanoff thinks that the sudoriparous glands exercise a regulative influence

upon the production of these cutaneous currents. He considers it a thermic regulation, favoring cutaneous evaporation and disassimilation in the course of cerebral acts, and dependent upon them.¹

Trophic Disorder of the Skin due to the Galvanic Current.—M. H. Koebner reports² the case of a woman suffering from nervous headache, and treated by means of galvanism. The positive pole was applied to the forehead and the negative electrode to the nucha, which it covered to the seventh cervical vertebra. The current employed was so weak that it merely produced a slight sensation of heat. No luminous sensations or vertigo were experienced. At the end of the séances, which lasted no more than three or four minutes, no redness or other modification of the skin was perceived at the point of application of the electrodes. From the first sitting, however, the patient complained of intense pains at several points in the neck, which had not been in contact with the electrodes. The next day, at the points indicated, vesicles similar to those of herpes or zona were seen. The vesicles soon became eschars, which left behind them persistent white spots. The vesicles occupied positions corresponding to the transverse cervical branch of the superficial cervical plexus. As the same phenomena followed each of four consecutive sittings, M. Koebner was obliged to abandon the electric treatment. It is noteworthy that when, some weeks later, the writer resumed the same electric treatment no trophic trouble resulted, which shows conclusively that the current had nothing to do with the matter. Why don't Koebner use a meter?³

Filling for Dry Batteries.—Charcoal, 3 parts; graphite, 1 part; peroxide of manganese, 3 parts; hydrate of lime, 1 part; white oxide of arsenic, 1 part; glucose and dextrine (or starch) 1 part; these all by weight. Powder well, and mix thoroughly whilst dry. Add a solution composed of equal parts of a saturated solution of chloride of ammonium and chloride of sodium in water, to which add a tenth (in volume) of mercuric bichloride, with an equal volume of hydrochloric acid. Add the fluid gradually, and work the mass up thoroughly.

New Electropoion Fluid.—The ordinary "red acid" liquid electrolyte is simply abominable; it has ruined more than it ever cured. A good substitute is a solution of sulphate of mercury (about 7 per cent.), with a little nitric acid (a quarter of 1 per cent.), and this has the advantage of keeping the anodes amalgamated. The E. M. F. of a cell thus fixed is in the neighborhood of 1½ volts. The following example gives the result of an experiment in seeing what the relative worth is of the two:

Time elapsed after immersion of zincs.	"Mercuric." Current in milliamperes.	"Red Acid." Current in milliamperes.
¼ hour.....	50	66
1 "	50	62
1½ "	50	53
2 "	49	50
2½ "	48	43
3 "	47	30
3½ "	46	20
4 "	45	15
4½ "	30	11
5 "	24	10
Total.....	439	360

¹ *Le Progrès Médical.*

² *Neurol. Centr. Bl.*, May 1, 1890.

³ *L'Electro-thérapie.*

¹ *Centralblatt für Gynakologie*, July 5, 1890.

² *Berliner Klin. Wochenschrift.*

<i>"Mercuric Fluid"—Zinc Element. Oz. Dr. Sc. Gr.</i>				
Weight at commencement of test	2	0	1	18
Weight at termination of test.....	2	0	1	7
Loss of zinc in grains.....	11			

<i>"Red Acid Fluid"—Zinc Element. Oz. Dr. Sc. Gr.</i>				
Weight at commencement of test	2	0	3	15
Weight at termination of test.....	2	0	1	15
Loss of zinc in scruples (or 40 grains)..	2	0		

total quantity of current—"Mercuric Fluid"..... 439 m. a.
 " " " " "Red Acid Fluid"..... 360 " "

Extra quantity in favor of the "Mercuric Fluid" 79 "

Percentage greater in favor of the "Mercuric Fluid" 22 per c.

total percentage of quantity of current derived in favor of the "Mercuric Fluid," taking into consideration the comparative consumption of zinc: "Red Acid Fluid," 40 grains; "Mercuric Fluid," 11 grains 85 41 "

It will be seen by the above figures that the current given by the "mercuric fluid," although not so forcible to commence with, yet, taking all things into consideration, is more constant and greater in force and quantity for a given length of time than that generated by the "red acid fluid." The "mercuric fluid" in five hours' time loses but little less than half of its strength, while the "red acid" loses a little more than seven-eighths, with a consumption of nearly four times as much zinc, or as 11 is to 40.

The resistance was fifty ohms during the work.¹

New Electrode for Cataphoresis.—Messrs. Waite & Bartlett, of New York, have made, at the suggestion of Dr. Peterson of that city, a new diffusion electrode formed by a disk of platinum, on which is placed the remedy to be used in solution poured on tissue paper. A rubber ring along the edge is used to retain the paper in place; hence, it is evident that accurate dosage is thus secured. Mr. Otto Boeddiker, the well-known pharmacist of the same town, has made up a list of the more commonly used drugs employed by cataphoresis, and they will be found to be a valuable addition to the armament of the practitioner.²

Anodyne Effects of Electric Light.—Stien, of Moscow, records³ fourteen cases of painful affections in which he used the electric light as an anodyne, with good results. The apparatus used for the purpose consists of a small-sized incandescent electric lamp of three or four volts power, with suitable handle and a funnel-shaped reflector, three to six centimeters in length and two to three in diameter. The reflector was applied directly to the painful area, lasting from ten to fifteen seconds about the head and neck, and five minutes or longer to other parts of the body, or until the patient complained of intense heat. The anodyne effects are said to be most striking. A woman suffering from obstinate intercostal neuralgia was permanently relieved after a single sitting. The same result was obtained in another patient suffering from intense rheumatic pains about the shoulder. In another patient, a nervous woman, with intense pain about the foot and ankle, two illuminations, of five minutes each, caused complete cessation of all the symptoms. A case of laryngeal tuberculosis, in which 1 grain of morphine daily afforded but trifling relief; ten or fifteen seconds illumination of the larynx and

both sides of the neck externally every day, reduced the paroxysms of coughing to two or three in twenty-four hours. Beyond the slight calorific effect the method cannot possibly produce any effect; none electrically most certainly.

Society Notes.

OBSTETRICS AND GYNECOLOGY AT THE AMERICAN MEDICAL ASSOCIATION.

THE RESTORATION OF THE PELVIC STRUCTURES AFTER INJURY

WAS the subject of a paper by DR. HENRY O. MARCY, of Boston. The doctor's views on the lesions of the perineal structures and the reconstruction of the various parts involved are, in a general way, well known to the profession. His methods are widely different from those usually recommended, and, in a synoptic way, may be classed as follows: The parts injured lie behind the vaginal muscle, and the dissection should be so made as to lift it forward. The retroverted ends of the transverse muscles are thus reached and rejoined to the levator loop. This is accomplished by buried tendon sutures applied in different lines and the parts thus closed are sealed with iodoform collodion. When the rupture is complete the rectal and vaginal sides are first closed by lines of continuous buried tendon sutures, and then the operation is finished as when the rectum is not involved. Dr. Marcy has used this method for many years, and has operated on several hundred cases, rarely without a perfect restoration of the parts. Trachelorrhaphy is greatly simplified by the use of the continuous tendon suture, applied with the Hagerdon needle, and the great gain lies in the fact that the sutures require no further attention, and a vaginal dressing of iodoform wool, changed once or twice, is the sole care that is requisite. Thus effected it allows of a perineal reconstruction at the same time of operation, also a manifest advantage. Dr. Marcy always uses the continuous tendon suture in the closure of vesico-vaginal fistula and in vaginal resections undertaken for cystocele, or other deformities of the tract requiring plastic operations. The paper included an interesting review of the uses and history of the animal suture.

THIRTY-FIVE SPECIMENS OF ECTOPIC GESTATION REMOVED POST-MORTEM

was the subject of a very able paper by DR. HENRY F. FORMAD, of Philadelphia. The paper contained a large amount of statistics. The doctor had examined 3,500 women, many of them, however, quite old women. His 35 cases were, 1 ovarian, 3 interstitial and 31 tubal intra peritoneal. The ages of the women were from twenty to forty years. They were women in good health, and hard working women. They were all multiparæ, and all at the time under some form of physical emotion, working, lifting. Not one of the cases was diagnosed ante-mortem. Thirty-one died in twelve hours and three in twenty-one to thirty-six hours—the three interstitial cases. All of these women knew they were pregnant. There was a bloody discharge, a sudden pain in the abdomen, a giving way and collapse. Mode of death, in every case, internal hemorrhage. He thinks there is no such thing as hematocele of the Fallopian tube. He thinks he must have missed an enormous number of cases of ectopic pregnancy in former years. He used to

¹ *Am. Med. Jour.*

² *N. Y. Med. Jour.*

³ *Meditzinskoi Obozrenie, British Med. Jour.*

find a number of cases of hematocele. He believes now they were ectopic gestation. He found it a very hard matter to find the foetus, and only succeeded in one-half of the cases. In all of his cases there was chronic salpingitis.

THE PATHOLOGY AND TREATMENT OF CHRONIC OVARITIS

was the subject treated by DR. A. J. C. SKENE, of Brooklyn, N. Y. He discussed the great question when to remove the ovaries and when not to. Young persons he found to stand removal of the ovaries badly. They became fat, irritable, indolent and dissatisfied. His treatment for chronic ovaritis was, saline laxatives, relieve pain by bromide of sodium, 20-30 grains, with fluid extract of hydrastis, 10-15 drops. This is most efficient in the beginning of the attack. If the pain returns you may return to the medicine. Ten grains of salicylate of soda and five of antipyrine between meals and at bedtime, when the stomach is empty. Give feeble patients aromatic spirits of ammonia and camphor, which are better than alcohol. In unmarried avoid local treatment if possible. Use hot sitz baths. Bichloride of mercury and syrup iodide of iron are good. The bromide may be supplied.

MY FOURTH CONSERVATIVE CÆSAREAN SECTION

was the subject of a paper by DR. H. A. KELLY, of Baltimore. The patient was dwarfed and rachitic, thirty-five years of age, weighing 115 pounds, and 52 inches high. Head large and angular, with prominent forehead; body long and legs short, with marked outward curvature of the thigh bone, giving a distinctly waddling character to the gait. The previous history has been illumined by the fact that she had been paralyzed for a long time, beginning in her eighth or ninth year. She never grew any after that. The child was taken out alive, and is still living and doing well, as is also the mother, who recovered without an untoward symptom. The details of the operation are given. This makes the fourth case for the doctor in three years, all the patients being alive and well at the present time.

THE USE OF COCAINE IN GYNECOLOGICAL SURGERY

was the title of a paper by DR. WM. H. HUMISTON, of Cleveland, Ohio. He uses it in dilating and cutting, first giving a tablespoonful of whiskey or brandy. Fill a hypodermic syringe full of a 4 per cent. solution, with 2 minims of pure phenol to each half ounce of the solution. Inject 5 minims into the posterior lip, wait two minutes, then with the bullet forceps, which will be painless, secure a firm hold. Inject into several portions of the cervical canal an amount equal to about 20 minims. Dilate till you can inject 10 minims of a 10 per cent. solution into the uterine canal cavity. He has not given an anæsthetic save cocaine in dilating uterine canal for the past three years, and his operations have included many primipara. In trachelorrhaphy inject the angle and surfaces you wish to denude, and you can operate with no pain at all. In perineorrhaphy he uses the split flap operation, and with one injection of 30-40 minims of a 4 per cent. solution he anæsthetizes the whole field. He quiets his patients by telling them he will give them chloroform if they cannot stand it, but has never had to do so. Has had unfavorable symptoms from the cocaine, which vanish very quickly after the administration of stimulants. He has dilated the urethra for fissure and irritable

carbuncle with but slight pain. He had assisted at an Alexander's operation where 2 grains were injected, one in each side, at intervals of one-half hour. The patient experienced but slight pain. He then reported a case where he performed the operations of trachelorrhaphy, anterior and posterior colporrhaphy and perineorrhaphy at one sitting, with cocaine as an anæsthetic. The whole time required in making the four operations was one hour and forty-five minutes, and 75 minims of a 4 per cent. solution of cocaine was used, or 3 grains.

MINOR UTERINE SURGERY

was the title of a paper by DR. J. M. BALDY, of Philadelphia. He thought that Emmet's operation for lacerated cervix should in most cases fall into that deserved disuse which has come to splitting up the cervix for sterility and dysmenorrhœa. He thinks, on the whole, it had been better for womankind had the uterine sound never been invented. He thought that the careful study of bimanual palpation would largely do away with the sound. Taking it all in all he decidedly approves of gynecological minor uterine surgery in the field to which it is applicable, but it must be borne in mind that this field is a limited one, and one which becomes more and more narrow as our diagnostic resources increase.

A CONTRIBUTION TO THE NORMAL AND PATHOLOGICAL HISTOLOGY OF THE TUBES

was the subject of a paper by DR. J. WITRIDGE WILLIAMS, of Baltimore. He insisted there were three layers of muscular tissue instead of two. A twisted condition of the tube, he said, showed the border line between health and disease. The twists show an infantile condition of the tubes. This is found in women who are poorly developed sexually.

REPORT OF A CASE IN WHICH A CHILD'S ARM BECAME ENGAGED IN THE FENESTRUM OF THE OBSTETRIC FORCEPS

was the subject of a paper by DR. DANIEL MILLIKIN, of Hamilton, Ohio. The patient had borne four dead children after severe and complicated labors, each time under the care of a different physician. She had also borne one child living, which probably owed its life to the fact that it was very small, and was probably prematurely born. The forceps were carefully applied, easily locked and never inclined to slip. The effort to deliver by forceps was much prolonged. When, finally, it was attempted to deliver by podalic version a condition of affairs was found which, to the essayist, was unique in obstetrical practice. The upper blade of the forceps—that one which passed to the right of the woman's pelvis—would not come away. The lower blade was withdrawn first, but still the other would not come. The hand passed into the uterus revealed the fact that the child's right hand had passed through the fenestrum of the blade, and that in fact the blade hung on the bend of the elbow, as a basket hangs on one's arm. The blade could not have been withdrawn without internal manipulation. Presently, when the child had been withdrawn by the feet, it was shown that violence had been done the arm near the elbow. No bones were broken, but the soft parts considerably injured. Undoubtedly, if the instrument had been long and stiff, and it had been thought proper to compress the head, the arm might have been chewed off. Endeavoring to draw some warning from such a sorry job, we may note, first, that the accident could only occur

during the supra-pubic application of the forceps. All the evolutions it must have made to attain this position require room, and must have been made above the brim. In the second place, the accident cannot possibly be diagnosed, unless the head and arm are so large as to arouse suspicion, on account of the amount of substance between the blades of the forceps. In this case he did not believe that the most expert obstetrician could detect the accident before the attempted withdrawal of the instrument. For this reason he is ready to inquire whether the fenestrum has any right to exist. What is it good for anyway? It has been said that the fenestrum gives lightness to the forceps. This is, at first glance, very plausible, but it admits of question. We cut out the fenestrum, but we thicken the remainder of the blades. What signifies this weight anyhow? Ordinary instruments do not weigh more than a pound, and the brother who cannot carry a pair or two at this weight is not fit to be out at night alone, much less use the forceps. The fenestra, it is said, permit of the forceps getting a better hold on the head by the protuberances projecting through them. This is seldom the case. Forceps rightly chosen and rightly used make room instead of occupying space. The fenestra increases the total amount of edge surface, which is an objection. Fenestra should at least be abandoned in forceps for use above the brim.

CELIOTOMY (ABDOMINAL SECTION) FOR RUPTURE OF THE PARTURIENT UTERUS

was the subject of a paper by DR. HENRY C. COE, of New York. The doctor thought this preëminently a surgical emergency, and should not be studied from its gynecological or obstetrical side alone. The author based his paper entirely on his own personal experience, that of four cases in which abdominal section was performed, one case successful, the patient being now in perfect health. Operative treatment in the unsuccessful cases came too late, *i. e.*, from eight to eighteen hours after rupture. The successful case was as unfavorable as could be, but was operated upon early, as soon as the lesion was discovered. The writer thinks that abdominal section is indicated under the following conditions: Before the uterus is emptied, when the placenta or any portion of the foetus has escaped through the rentas, attempts at manual delivery only increase the shock and destroy the patient's chances after section. Where there is evidence of progressive internal hemorrhage. After the uterus is emptied, it should be done when there is extensive prolapse of the gut through the tear. In all complete lacerations (especially in those involving the broad ligaments), except small tears low down near the vaginal fornix, where good drainage can be maintained. In incomplete tears where the broad ligament is extensively involved and there is evidence of progressive hemorrhage. This point must remain sub judice. Only one other besides the writer (Peters) has opened the abdomen in such a case. After opening the abdomen he arrests the hemorrhage either with forceps or the temporary ligature, rubber ligatine. If the tear is small (two inches) and is low, Douglas cul-de-sac drainage per vagina may be indicated. If the tear is clean cut, without contusion of the edges, and does not involve cervix or broad ligaments, it may be closed with deep or sero-serus sutures. If the tear is not low down, is extensive, with contusion of the edges, and especially if a portion of the foetus present protrudes, amputation of the uterus, with extra peritoneal treatment of the stump, is indicated. In extensive transverse tears of

the lower segment of the uterus, and in tears beginning in the cervix and extending upward through the broad ligament, the writer would strongly urge the propriety of total extirpation of the uterus as the operation par excellence. The doctor deprecates any intention of recommending a heroic method of treatment to the entire exclusion of the more conservative. He is an avowed conservative in abdominal surgery, but believes that rupture of the parturient uterus is a desperate emergency, in which a fatal termination is the rule, and that it requires prompt and energetic treatment according to the rule of modern surgery. The fact that statistics of cœliotomy has in these cases shown a large mortality is an argument against the operation. In every case the accoucheur, if not himself a surgeon, should, without an instant's delay, summon experienced counsel, and explain to the family that immediate resort to the abdominal section may be necessary. Only by prompt interference can we expect to improve the statistics, and thus elevate the operation above the level of a hopeless and apparently unnecessary surgical experiment.

THE USE OF VAGINAL TAMPONS

was the subject of a paper by DR. W. A. R. SELLMAN, of Boston. He thought the vaginal tampon was seldom required for a hemostatic effect. In an experience of twenty years he had not found it necessary to tampon for a hemostatic effect for hemorrhage. He did not even favor the tampon in hemorrhage from cancer. He never applied the tampon in specific gonorrhœa, as it might force the disease up into the uterus and tubes. He recommended tampons in office practice where a solution was applied, which might run out and cauterize the outer part. He also recommended them in prolapsed uterus, where there was no uterine catarrh, and inserted them as pessaries after plastic operation.

THE ELECTRICAL TREATMENT OF FIBROID TUMORS, WITH AN ANALYSIS OF FORTY-SIX CASES.

was the subject of a paper by DR. G. BETTON MASSEY, of Philadelphia. He considered the rise and progress of the Apostoli method, and spoke of the unparalleled fierceness of the opposition to it, which was, however, as healthy as it was fierce. He did not regret this rivalry, but did regret the intemperate statements of certain extreme opponents in striking contrast to many electro-therapeutists, who willingly concede to surgery cases unsuited to electrical treatment yet demanding active help. The doctor's results were as follows: 5 cases of complete anatomical and symptomatic cure, the tumor disappearing and the patients restored to health; 25 where the tumor was considerably diminished in size, and all other symptoms were cured; 8 in which the tumors were not diminished in size, but all symptoms disappeared; 2 in which the tumors were not diminished, nor the symptoms relieved; 1 case was made worse by treatment; 7 were not taken account of, because two were polypoid, and their delivery only assisted by the electricity, and 5 cases were treated for too short a period. This gives about 92 per cent. successes, 8 per cent. failures. Of the 5 cases of complete cures by absorption all were intra-mural, and treated by intra-uterine application. Of the 23 cases symptomatically cured and anatomically reduced, 15 were intra-mural; 4 sub-peritoneal; 3 intra-mural and sub-peritoneal; and 1 sub-mucous. The cases symptomatically relieved without anatomical reduction, 6 were intra-mural; 1 intra-mural and sub-peritoneal; and 1 sub-mucous. He punc-

tures only in a few cases to which it seems adapted. The intra-uterine method is certainly the method of choice

While an increasing familiarity with hysterectomy for fibroid tumors will doubtless render operators more expert in the work, and possibly lessen further the mortality of the operation, accurate knowledge is yet wanting concerning the after-histories of the cases reported as successful, with special bearing on the relief of painful symptoms, or their increase by the addition of post-operative incidents or accidents. A conservative method of treatment, which apparently acts by inducing aggressive changes in the morbid processes, resulting in a complete anatomical cure in over 12 per cent., and a practical cure in 74 per cent. All cases deserve most careful consideration from scientific men, since but few remedial measures from analogous diseases can lay claim to an equal measure of success. The electrical method of arresting, reducing and dispersing fibroid tumors, besides being truly curative in transforming vitiated tissue action in natural absorptive processes, has the further merit of leaving intact all neighboring organs and functions yet existing, as the ovaries, etc., the current acting as a general revivifier of all highly organized parts and processes, while hastening the destruction of adventitious and lowly organized tissue.

Papers relating to this subject were read by Dr. Marie B. Werner, of Philadelphia; Dr. Thomas Opie, of Baltimore; while the operative side was discussed in papers by Dr. Joseph Price, Philadelphia; Dr. Joseph Eastman, of Indianapolis. The discussion was conducted by Drs. Skene, of Brooklyn; Baldy, of Philadelphia; Fry, of Washington; Martin, of Chicago; Mordecai Price, of Philadelphia; Florian Krug, of New York; and Joseph Hoffman, of Philadelphia. The discussion was a very long and interesting one. The Chairman said he wanted the subject peeled to the bone. He called alternately on advocates of electrical and surgical treatment. The statements on both sides exhibited more of a spirit of fairness with less reckless utterances than former debates during the past few years. It would seem that the surgical brethren are perfecting their technique, so that they are having better success and fewer deaths, and that the electrical brethren are doing the same thing. That surgeons do not operate on every case, nor do electricians, and on the whole we are coming to a more sensible view of the whole matter.

THE RELATION OF DISPLACEMENTS OF THE ABDOMINAL VISCERA TO PELVIC DISEASE

was the subject of a paper read by DR. J. H. KELLOGG, of Battle Creek, Michigan. The purpose of this paper was to show by the study and comparison of the measurements of large number of civilized women, including peasant women of the laboring classes, Chinese, American Indian, East Indian women, and Ancient Greek models. The doctor found:

1. That the average adult civilized woman of modern times is deformed, her waist measurement being too small for the rest of her body.

2. That this deformity and others associated with or growing out of it, are the results of an unnatural and unhealthy mode of dress and the neglect of physical or muscular activity.

3. That the deformity of figure which the average woman presents is indicative of changes in the static relations of the abdominal and pelvic viscera, which are the source of many and serious morbid conditions and painful symptoms.

4. That the great majority of cases of pelvic diseases in women, especially cases of displacement of the pelvic viscera, the pelvic disease is not an isolated or independent malady, but only a partial or local expression of a more general disease, which involves also the abdominal viscera in whole or in part.

5. That in consequence of constriction of the waist and weakening of the lower muscles of respiration, the civilized woman has acquired an unnatural mode of breathing, which tends strongly in the direction of the development of disease of the abdominal and pelvic viscera.

6. That any therapeutic method addressed to the cure of maladies of this class to be successful, must include such measures as will correct the disturbed static relations of the abdominal viscera, as well as the displaced uterus and ovaries, and will remove the cause of these displacements by removing the unnatural supports.

The doctor then presented the following measurements of the waist:

	PER CENT.
• East India women of Telugu, whose clothing constricts the waist.....	40.6
English laboring women, brickmakers, who wear tight bands and heavy skirts.....	41.3
Civilized men, American	43.3
French peasant women	45.4
Chinese women	45.4
Yuma Indian women of New Mexico.....	55.2
The Venus de Milo.....	47.6

It thus appears that the average natural woman has a larger waist than the natural man, which is not surprising, since she has a larger liver, and her waist must sometimes expand still more to enlarge physiological requirements.

Tracings of the outlines of women were shown by the doctor. First was that of a healthy woman. Her characteristics were a strong anterior dorsal curve, hips well set back, chest prominent, abdominal muscles well drawn up, head erect and body well balanced upon the balls of the feet. In contrast to this was shown the unhealthy woman, who spends her time going from one gynecologist to another. Characteristics: hips forward, spine straight, abdomen pendulous, chest flat, shoulders drooping, chin projecting, body balanced upon the heels, and a weak and relaxed condition of the whole figure. In this case the stomach, bowels, kidney and right liver were each several inches below their proper position. These constrictions of the waist cause unsightly protrusions of the lower abdomen. The doctor has made pneumographic studies of the breathing of several hundred women, including civilized, Indian and Chinese women, of various conditions. He finds women who have not been deformed breathe as do men. Chinese women and Indian women breathe as do men. A female dog breathes just as a male dog. A man in a corset breathes as does a woman. A female dog in a corset breathes as does a woman in a corset. Hence the female type of respiration is pathological.

SUGGESTIONS AS TO ABDOMINAL AND PELVIC SURGERY

was the subject of a paper by DR. WM. H. WATHEN, of Louisville, Ky. The doctor thought there was too much laparotomy done, and too many men doing it. The appendages are sometimes removed for vague nervous troubles, where there is no disease of the ovaries or tubes, or peritoneal adhesions. Such cases are often made worse, and mutilated in a way which cannot be corrected. Many of our best ope-

rators are urging upon the profession that the operation be not done unless there is well-defined disease which has resisted, or will resist, other more conservative means. As the experience of an honest surgeon widens, he operates relatively less frequently, and he can recall cases which he does not believe should have been operated upon at all. In preparing for an operation, the physical and mental condition and the hygienic and sanitary surroundings of every patient should be made as perfect as possible, and unless absolute surgical cleanliness be followed, septic infection may result. The danger from the atmosphere is practically nil and the spray unnecessary, which, if strong enough to kill pathogenic germs, will be positively poisonous. If the operator neglects details he will be disappointed in the results. Operating table has plate glass cover, and instruments which are used are placed in porcelain-lined vessels. Operator and chief assistants take a bath, and put on clean aprons reaching from neck to feet. Towels washed and boiled, sponges clean and well-shaped, and, after being well boiled, are made aseptic after the method of Greig Smith. Sponges once used may be again used if again made aseptic in the same manner. He uses Chinese hard, twisted silk, of three sizes, and sterilized so that a culture cannot be made from it. All instruments, towels, etc., are washed thoroughly and then sterilized an hour before the operation. The patient is given one or more hot baths before the operation, and the vagina and rectum washed out, and the pubes shaven. Before making the abdominal incision the abdomen is again washed with soap and water, and wiped off with sulphuric ether. Dry towels, covered with towels wrung out of hot water, are placed over the abdomen. He uses no antiseptic solutions for the sponges and instruments, but keeps them in sterilized water as hot as can be borne. Adherent intestines should be separated, if possible, otherwise the operation is not a success. He believes antiseptics cause adhesions, and does away with them. The drainage-tube should be used if hemorrhage has not ceased, or if foreign matter which is possibly antiseptic is admitted into the abdomen. A small tube will usually drain as well as a large one. He does not favor capillary drainage of the tubes, nor vaginal drainage.

THE AFTER-TREATMENT OF CASES OF ABDOMINAL SECTION

was the subject treated of by DR. CHAS. P. NOBLE, of Philadelphia. That which is accomplished in the after-treatment in abdominal section is principally of a negative character. The object is to protect the patient from all sources of danger while nature does her perfect work. Sustain the powers of life, enable the patient to pass a crisis; to keep the enunciations active, and to prevent wound secretions from becoming a source of poison. Plenty of air, light, and ventilation. First twenty-four hours give nothing in the way of food. Rinse the mouth with water, or, if thirst is excessive, enemas of equal parts of beef-tea and water. Second day 1 or 2 drachms of water every half hour. In thirty six to forty-eight hours 1 or 2 drachms of beef-tea at frequent intervals. If all goes well, on the fourth or fifth day water *ad libitum* may be given. After a week soft diet, and after two weeks a full diet. The drainage-tube used, unless contra indicated. It should be packed in sterilized cotton, unless hemorrhage is excessive, and a rope of gauze, wet with bichloride, passed down to the Douglas pouch and out to the cotton. In this way the most of the fluid is removed by

capillary attraction. If hemorrhage is excessive, it is better to use rubber dam about the tube. Surgeon should render his hands aseptic before handling the tube. The bladder should be emptied by the patient, if possible. Care should be taken to avoid catheter cystitis. This is best accomplished by using a glass catheter. Bowels should be opened early—second or third day. The pain after abdominal section is largely intestinal, due to flatus or irregular peristalsis, and the best way to relieve it is to open the bowels. They should be kept open on alternate days during the convalescence. Thirst can often be appeased by bathing the hands in ice-water. Glycerine and ice-water will relieve dry mouth, but the sweet taste of the glycerine is objectionable to most patients. The patient should be encouraged to bear up under pain. Cotton wool pads and air cushions will add much to the patient's comfort. He keeps patients on their backs for two weeks, and out of bed after three weeks. Shock is best met by the application of external heat, the use of strychnine, caffeine, digitalis, and whiskey hypodermically, and decoctions of coffee or beef-tea hypodermically. If much blood is lost, large amounts of fluid will be absorbed from the rectum. A saline solution may also be injected into the areolar tissue. Vomiting from ether cures itself. If it continues more than two days some other cause must be sought. If simple means fail, the vomiting will be found due to peritonitis or impending obstruction of the bowels. In either case, the bowels should be moved at all hazards. When fever occurs the bowels should be kept frequently open, and the body sponged frequently with cool water. The use of antipyretics is of doubtful value. When to reopen the abdomen and when to resort to medical measures is a difficult problem. In general, when the skin is dry, the face flushed, and the pulse full and bounding, secondary operation will be unnecessary. When the skin is "leaky," the extremities cool, and the pulse rapid and feeble, absorption of septic material is going on, and operation is indicated. Opium in any form, in typical cases of abdominal section, is unnecessary. Occasionally morphine is useful when a nervous patient becomes excited and cannot otherwise be controlled. Asthenia must be combated by the systematic use of nutritive enema with whiskey, together with the administration of such liquid food as the stomach will bear. Champagne can often be given with advantage when other stimulants are rejected. Less can be done by alimentation and medication after abdominal section to combat asthenia than after other operations, because, as a rule, the stomach is not available.

CAN THE GYNECOLOGIST AID THE ALIENIST IN INSTITUTIONS FOR THE INSANE?

was the subject discussed with great vigor by DR. I. S. STONE, of Washington. The doctor had systematically investigated the present status of medical practice in the institutions for the insane in many of the States. His investigations opened up the fact that the superintendents of asylums, with but few creditable exceptions, felt themselves competent to treat all phases of diseases of women, or, in fact, to be full-fledged specialists in all departments, and were not at all gracious to outsiders—especially gynecologists—who might endeavor to offer aid. To his inquiry, "Can the gynecologist aid the alienist in institutions for the insane?" he received largely negative replies. He drew the inference that asylum superintendents thought gynecologists meddlesome

and bungling men, who did more harm than good. So far as he was able to determine, female diseases were seldom recognized, much less treated, by these superintendents, and he propounded the query, "Why is it that insane women apparently do not have the same diseases that afflict so many sane members of their sex?" The doctor urged, in closing, that the fullest details be obtained, that we may know the real relation between diseases of the female pelvic organs and insanity.

DR. BYRON STANTON, of Cincinnati, said that when a man became an asylum superintendent he ceased to be a competent doctor.

DR. JOSEPH EASTMAN, of Indianapolis, reported a case where a woman was incarcerated in an asylum for a year and discharged hopelessly insane, and then cured by an operation at his hands. This, too, when the possibility of female trouble had been suggested before she entered the asylum, and frequently during her stay there. The superintendent would have it that it was nothing but a neurosis, and that she was incurable. The extent of her cure may be known by the fact that she now occupies the position that she held before her insanity, viz., lady superintendent of schools. The operation performed in this case was the removal of the appendages, and was necessitated by the finding, on exploratory incision, that one of the Fallopian tubes was bent sharply on itself, and bound down tightly by a peritonitic adhesion. In operation on patients insane from self-abuse, he had been completely successful in one case, and partially in another.

DR. J. H. MCINTYRE, of St. Louis, added his testimony to that of Dr. Stone.

DR. EDWIN WALKER, of Indianapolis, thought a very large number of our cases were neuroses, though some of them were doubtless due to gynecological troubles.

DR. C. A. L. REED, of Cincinnati, who has written a brochure on this subject, called Dr. W. W. Potter, of Buffalo, to the chair, and said that he had given this subject serious attention for a number of years. He was satisfied of the sound scientific basis for reform which would involve the appointment not only of gynecologists, but of specialists, in all other departments as staff officers to asylums. The fact unearthed by Dr. Stone, that the alienists did not want the assistance of any one else in the care of the insane revealed an alarming state of affairs. The claim that the medical superintendent, who is generally a housekeeper, a gardener, a jailor, and who, at the same time, was competent to treat diseases of the eye and the ear, of the lungs, pelvis, and every other special organ, was preposterous. The claim is made, however, by these gentlemen, and is a clear demonstration of their pretentiousness. The doctor challenged any superintendent of this class to an experiment, the result of which would be as interesting to science as startling to humanity. He challenged them to submit their patients to an examination of specialists representing the different branches of medicine, merely for the question of diagnosis. He staked his reputation for truth and veracity that the examination would reveal curable diseases in many instances, the cause of the insanity, the existence of the former never having been suspected by the alleged medical colossus who is known as the superintendent. The evil, he asserted, was not a scientific one. It had passed beyond that point. It is now a problem in political economy; nothing more nor less than the eradication of the self-perpetuating

scheme of superintendency, which is as pernicious as was ever priest-craft in its worst state.

A CERTAIN CLASS OF OBSTETRIC CASES IN WHICH THE USE OF FORCEPS IS IMPERATIVELY DEMANDED

was the title of a paper by DR. AUGUSTUS P. CLARK, of Cambridge, Mass. If there is to be a resort to either the forceps or internal version, the former should be chosen. The former conditions thought to demand the use of the forceps, undue distance from the soft parts, great debility of the patient, and the occurrence of convulsions fall far short of being the present status. When the head of the foetus has descended into the cavity of the pelvis, and the labor has become lingering from uterine inertia, the forceps may be used with the greatest advantage. In protracted labor, when the foetal head has engaged the pelvic brim or has only reached that introitus, and become arrested in its descent, the forceps should be preferred to all other means of relief. The necessity of the application of the forceps in such cases implies the normal or nearly normal proportion of the pelvic cavity. In cases of protracted labor, where the head has not yet reached the pelvic brim—the foetus still alive—his experience is largely in favor of the forceps. In every such case the forceps should be of requisite length, and of a curve adapted to the peculiar curve of the pelvis. The frequent employment of the forceps merely for the shortening of labor, betrays lack of appreciation of the real advantages to be derived from instrumental interference, also, want of conception of the dangers, either immediate or remote, which may follow in any case in which the forceps have been brought into requisition.

A new forceps was presented by DR. L. E. NEALE, of Baltimore. The pair of forceps which the doctor presented for the inspection of the Section had occupied his attention since 1886. The idea was a combination of the axis traction forceps and the ones commonly in use. He claimed little originality in the instrument, it was simply a combination of the two varieties. The forceps had peculiar curvatures, both pelvic and cephalic, and a peculiar basket and bulging shape of the inferior rib. The forceps may be used in all operations, and combined the utility of both varieties completely.

Axis traction and a combined axis traction forceps, to be used as a substitute for craniotomy and version in pelvic deformities, were presented by DR. T. J. MCGILLICUDDY, of New York. He said the upper part of an infant's brain would stand considerable compression without injury. The base would not stand much. In this was seen the wisdom of encasing the latter part in a firm, bony case, while the former was not so protected. He advocated his instrument as a substitute for craniotomy.

DR. CHAS. P. NOBLE, of Philadelphia, considered the subject of axis traction forceps one of the most important which could be brought before this Section. The great merit of these forceps is that force is not wasted by dragging the head against the bony framework of the pelvis, especially the symphysis pubis. An unfortunate omission in Dr. McGillicuddy's forceps is that force is wasted in this way. This is not the case with Dr. Neale's forceps. Dr. McGillicuddy's forceps are similar to Huber's abandoned ones.

DR. JOSEPH HOFFMAN, of Philadelphia, imagined that Dr. Neal's forceps, on account of the joint being so far removed from the handle, it would be difficult to operate them. He thought McGillicuddy's for-

ceps immaterially different from those of Huber. These forceps do good work, but will fail in the lateral rotatory motion. Tarnier's forceps, though used to a certain extent in this country, are not used in Paris.

DR. H. D. FRY, of Washington, hoped that Dr. Neal would make one more change in his forceps before he quit, as they made dangerous compressions. Dr. McGillicuddy answered that Huber's instrument had non-removable handles, and this was the reason it was abandoned. His forceps had removable handles.

THE CLINICAL TEACHING OF OBSTETRICS IN AMERICA

was the subject of a paper by DR. E. S. MCKEE, Cincinnati, Ohio. Entering into this subject in a spirit of criticism, the author found much to commend. The improvement had been marked since he last had occasion to investigate this special field. True, there is yet much room for advance, but we have cause for encouragement. Of all the civilized countries on the globe, our own, usually the leader in this instance, proved the laggard. There was some excuse for this, that the time for study was too short, funds too meagre, the danger in a lying-in hospital too great, and the population too small and scattered to admit of obtaining material for the clinical teaching of obstetrics. "These conditions exist at present, but in a much more limited degree. Every city in which the existence of a medical college should be condoned, offers material which needs only to be grasped. This is being utilized by such well-known institutions as Harvard, Bellevue, The College of Physicians and Surgeons of New York, Jefferson Medical College, University of Pennsylvania, The College of Physicians and Surgeons of Baltimore, and the Medical College of Ohio, of Cincinnati. In this latter institution I have had some experience in laboring in the field in which the pioneer work had already been done by my colleagues, Drs. T. A. Reamy and E. G. Zinke. The experiences of these gentlemen in starting the Obstetrical Clinic of the Medical College of Ohio, as well as some of my own in the same clinic, would furnish some interesting items for this Section, did time permit. Let us briefly liken it to the labor of the primipara.

In many other medical schools of our country, the science of obstetrics is admirably taught by pictures, models, and illustrations of various sorts, but the vast majority of medical students in America graduate without ever having witnessed a case of labor. Until within the last three or four years the majority probably equaled 92 per cent. Many of our best teaching institutions have maternities connected with them. This is well; for here material is collected in small compass, and the student can see more in less time, being also under the supervision of competent instructors. Here he can be carefully inducted into the arts of inspection, mensuration, auscultation, percussion and indagation. Then, too, the out-door obstetrical clinic has its advantages. There is a close similarity between this and the first experiences of the student in his practice. He will first be called to the hovels of poverty where he must depend upon himself, and where he is developed. It would be well for this training to follow that in the maternity, should both be at command. The ideal teaching of obstetrics, is:

1. A course of didactic lectures with quizzing.
2. The observation and conduct of a number of cases in a maternity under the careful supervision of a teacher quizzing following each case, the student making a written report.

3. The out-door obstetrical work where the student is left on his own resources, instructed to call his teacher in cases of complications, which instruction may be omitted with especially diligent students after considerable experience.

Would it not be wise for this Obstetrical Section of this, The American Medical Association, the light and guide of the American medical profession, urging it on to higher and grander views of medicine, to declare with one strong voice that the clinical teaching of obstetrics should be a part of the regular course in every recognized medical college in America. With the seal of such approval, those laboring in this field will be given great strength, courage and hope."

THE TREATMENT OF ACCIDENTAL ABORTION

was the subject of a paper by DR. BEDFORD BROWN, of Alexandria, Virginia. The paper was the result of the observation and care of more than two hundred cases of accidental abortion occurring during an experience of forty years. When called to a case he gives first $\frac{1}{4}$ gr. morphine and $\frac{1}{60}$ gr. sulphate of atropine hypodermically, and if there is much hemorrhage and depression $\frac{1}{60}$ gr. strychnine and 20 minims of ergot to induce contraction of the arterial system and strengthen the heart. Then douche the vagina thoroughly with hot water containing permanganate of potash. If the hemorrhage still continues, a pint of hot water containing an ounce or more of alum is thrown into the vagina. This cleanses it of all coagula and causes decided contraction of the os uteri and the formation of a fine clot in the cervical canal, which, acting as a plug, stops the hemorrhage for a time and does not increase the tendency to abortion as does the tampon. These measures failing, and matters becoming serious, he packs the vagina with iodoform gauze. This failing, he passes the dilator into the cervix and injects three drachms of ergot into the rectum. This induces forcible uterine contractions and forces the fœtus and secundines through the dilated os. In the event that the placenta is still retained, we then have one of the most embarrassing complications of abortion. He has little faith in ergot for the arrest of hemorrhage in retained placenta, or for the expulsion of that body. In the delivery of retained placenta he has long since discarded all instruments as hooks, forceps and curettes as unsatisfactory and relies on the fingers alone. At the fourth month, and after he has found it necessary to introduce the entire hand into the uterus, so as to be able to remove the retained placenta. In abortion the placenta and its retention are the cause of more anxiety and trouble and annoyance than all other questions. The resultant hemorrhage, the sepsis, the local inflammations, the organic changes, the sub-involutions and septicæmia arising from its retentions render its early, prompt and thorough removal a matter of paramount importance. Safety, speed and completeness are the principal questions for consideration. The use of the tampon to restrain hemorrhage in retained placenta is not wise if we can avoid it. The principal is unwise and unscientific. It seals up a putrifying, septic, generating mass of animal matter in an organ which we would not dare do in any other organ of the body. He was fond of the iodoform gauze, conical-shaped tampon introduced on the screw dilator into the cervix in cases at the third month dilating the os one and a quarter inches, then douching the vagina with a hot antiseptic solution and three drachms of the fluid extract of ergot thrown into the rectum. To counteract collapse he uses successfully morphine, atropia and strychnine hypodermically, also sometimes whiskey,

while he favors the injection of hot water 110° , with a little chloride of sodium and bicarbonate of soda. This is given by a hypodermic syringe holding an ounce, and twelve or fifteen of these are given, thus adding about a pint of warm fluid to the circulation, enema of hot beef tea and water is also an advantage. Absolute rest of mind and body in the recumbent position is very necessary.

A REPORT OF TEN SELECTED CASES OF LAPAROTOMY WITH REMARKS

was the title of a paper read by DR. J. H. MCINTYRE, of St. Louis. These ten cases were selected from a large number, and were chosen for their interest, instruction and variety. Two were the Battey-Tait operation, and in both there was no return of the menstrual flow, though the sexual function remained as before. The last and most interesting case of all was the removal of an oedematous fibroma of dimensions enormous, a very good photograph of the patient before operating being shown. Adhesions were found almost everywhere, the most difficult to manage being those attached to the liver and diaphragm. At the time of the detachment of the attachments to the diaphragm the patient ceased breathing, sank rapidly, and it was thought she must die on the table, but rallied under appropriate treatment. The case was manifestly one for drainage, but on account of the vast expanse of lax abdominal tissue he did not believe the serum would gravitate into Douglas pouch sufficiently, and decided to defer drainage till necessary. Forty-eight hours after the operation the temperature reached 103.5° , a few of the ventral sutures were removed and the abdomen flushed out with hot distilled water. Many blood clots and much serum were removed, and the temperature fell to 101° within six hours. She died of septicæmia the fifth day after operation. He regrets that he did not resort again to flushing out the abdomen, as it seemed to improve her so much. Drainage in this case, though tried later, did but little good. Keith removed an oedematous myoma weighing forty-two pounds; Tait, a uterine myoma weighing sixty-eight pounds. This woman's weight was, before the operation, 199.5 pounds; after, 106 pounds, having a tumor removed weighing 93.5 pounds, which he believes to be the largest reported of the solid variety. The doctor operates antiseptically. Bleeding points are ligated with fine Japanese cable silk. The pedicle is always ligated and pocketed. The ventral wound is closed with silkworm gut, threaded upon two long veterinary needles passed from within outward, always inclosing the peritoneum. He considers this the ideal suture, not only for the ventral wound, but also for the operations for lacerated cervix and peritoneum. For anaesthesia the doctor uses exclusively the bichloride of methylene in a Junker's inhaler, and now with an experience in over three hundred operations of various kinds, he has not infrequently seen nausea, but vomiting, only five or six times. When in doubt he always drains and prefers Keith's glass tube over all others. He uses but little opium or morphine on account of its locking up the secretions, but in case of pain uses antikamnia with happiest effects. He had much praise for the Staffordshire knot.

JOINT REFLEXES CONSECUTIVE TO PELVIC INFLAMMATION

was the subject of a paper by DR. W. W. POTTER, of Buffalo. He discussed more particularly of an exagger-

ated form of reflexes which were found about the larger joints, especially the joints of the lower extremities. On account of the close connection of the pelvic organs and the hip joint through the cerebro-spinal system these reflexes are often found there. He often finds severe intolerable aching in the lumbar region, low down backache associated with pelvic disease. He related an interesting case of pain in the hip joint occasioned by a fall, and which was treated for hip joint disease for a long time, and was finally found to be due to pelvic peritonitis. The points to which the doctor called special attention, the intimate anatomical relations between the pelvis and the large joints through the cerebro-spinal system, the importance of early diagnosis, and the important medico-legal questions which may grow up, and which did appear in the case reported.

The President, in his address, expressed his profound appreciation for the honor conferred on him by his election to this office, which had been filled by so many honorable men, first of whom was Dr. Alfred C. Post, of New York. It was his duty to trace the progress in obstetrics and gynecology, and the first words of his address included one great advance, viz.: Ladies and Gentlemen. He thought it a matter of importance that ladies had been admitted to this Section and to this work. He traced the evolution of the Section from the time when there was only a committee on obstetrics which reported maybe every two or three years. Then obstetrics was added to the section on medicine; then obstetrics, gynecology, and pediatrics were grouped together; then pediatrics went to itself; and now, on looking at this immense programme, he would say that there was abundant material for two Sections—one on obstetrics and one on gynecology. He then took up specialism in medicine, and then special societies. He hoped the transactions of the Section would now appear more exclusively in the journal of the Association, and did not favor their publication promiscuously. He again returned his extreme gratitude for the honor conferred on him by his election as Chairman of the Section.

THE PREVENTION OF PUERPERAL CONVULSIONS BY THE INDUCTION OF PREMATURE DELIVERY

was the subject handled ably by DR. H. D. FRY, of Washington. The doctor considered the chances of the child better from induced abortion than from living in the poisoned blood of the mother. Of 829 premature children, with an average weight of four pounds, 662 lived. Tarnier, by his system of gavage, saved 30 per cent. of children at the sixth month. The safest, simplest, and best method of inducing abortion is by inserting a bougie between the uterus and the membranes. The catheter is not to be used. It is a dirty, hollow instrument, which is not easily kept clean. The bougie should be inserted in a solution of bichloride for twenty-four hours, and then washed in boiled water. He does not advise abortion for simply the presence of albumen, but only when convulsions are threatened.

DR. BYRON STANTON, of Cincinnati, thought that the cases requiring induced labor for the prevention of convulsions were extremely few. The shock of induced labor is too great. If labor has commenced, it is our duty to hasten it, so as to abbreviate shock. Methods of inducing abortion are so well known as not to justify discussion here. The induction of labor should be deferred as long as possible. The presence of albumen or the presence of convulsions do not

necessitate it, unless they cannot be controlled in any other way.

DR. W. W. POTTER, of Buffalo, advocated the early induction of labor in threatened abortion.

DR. A. F. A. KING, of Washington, advocated the postural treatment, viz., the knee chest.

SPASMODIC STRICTURE OF THE URETHRA FOLLOWING LABOR

was the subject of a paper by DR. LLEWELLYN ELIOT, of Washington. He reported two cases, which, from their rarity, he thought of interest to the Association, both occurred the seventh day after labor.

LAPAROTOMY, WITH REPORT OF CASES,

was the subject of a paper by DR. J. H. BRANHAM, of Baltimore. His cases amounted to eleven. They were his first, and all occurred during the past eighteen months. They were of great interest to him, and he made them appear so to his hearers.

PAPILLOMATOUS CYSTOMA OF THE OVARY, WITH REPORT OF A CASE,

was the subject treated by DR. A. B. WALKER, of Canton, Ohio.

A STUDY OF INFECTION THROUGH THE DRAINAGE-TUBES

was a very scientific paper read by DR. T. A. ROBB, of Baltimore. The experiments were carried on in the laboratory of the Johns Hopkins Hospital, and showed an infinite amount of work on the part of the essayist.

The paper was discussed by DR. KELLY, on whose patients the experiments had been performed, and who complimented the work very highly.

THE TREATMENT OF POSTERIOR FACE PRESENTATIONS,

By EUGENE BERNARDY, of Philadelphia. It has been his experience that if the chin presents posteriorly at the commencement of labor, and engages in the superior strait as such, unless changed by manual interferences, there remains posterior position during labor. The treatment of mento-posterior presentations practically resolves itself into two methods—version and craniotomy. He has failed to obtain any good results from the use of the vectis. The forceps should never be applied when the chin is to the sacrum. This is invariably followed by serious injuries to the mother, without due compensation. Version should only be performed when the presenting face has passed out of the mouth of the uterus. After the face has entered the pelvis I consider all attempts at version unjustifiable. Should all attempts fail to produce a favorable change in the presenting face, craniotomy should be performed—not after hours of ineffectual labor, when the mother's tissues are sodden and their vitality destroyed by the continuous pressure of an impacted face, but should be done at once.

PYOKTANIN AS AN ANTISEPTIC

was the subject of a paper by DR. H. J. BOLDT, of New York. The doctor has given this remedy a thorough trial, though only for a short time, but has been very favorably impressed with it. The supuration ceases more rapidly under its use than under other remedies, and that without producing any noticeable effect on the system. He used a 1 per

cent. watery solution, which is five to ten times stronger than is recommended. He has used it with success as an intra-uterine medicament.

A CASE OF OBSTETRICS, FOLLOWED FOR MONTHS BY A DAILY DISCHARGE OF OVER TWO QUARTS OF WATERY FLUID THROUGH THE CERVICAL CANAL,

was the subject of a report and paper by DR. JOHN HAMMOND BRADSHAW, of Orange, N. J. The child was a male, weighing 12.5 pounds, with a large ossified head; face presentation; podalic version, and child born dead. The sound on examination some weeks after labor passed readily through the fundus of the uterus to an almost limitless extent. The patient finally, after being placed on codeia, recovered from the flow, which resumed again on discontinuing the remedy, and again disappeared on resuming it. He is of the opinion, after six months observation, that this fluid comes from the peritoneal cavity, and that there is existing a hole through the uterine wall.

There were quite a number of other papers read by title or in full.

The officers elected for the ensuing year were: President, Dr. E. E. Montgomery, of Philadelphia; Vice-President, Dr. Bedford Brown, of Alexandria, Va.; Secretary, Dr. Franklin H. Martin, of Chicago.

On motion of Dr. Thomas Opie, of Baltimore, the number of papers at future sessions was limited to forty, and the Chairman was given power to eliminate to reduce to that number. There were seventy papers offered this time, and it was impossible to hear them all, though many were read by abstract.

HYDRASTIS IN PHTHISIS.—I have now been using it in the different stages of this disease over three years, and I think the result of my experience justifies me in asserting that in it I have found a remedy of remarkable efficacy in the treatment of phthisis, if properly and perseveringly used; and that the majority of cases, while in the early stages, can thus be restored to a condition of apparent health.

During the first month of treatment the night-sweats usually disappear, and the cough and expectoration are greatly diminished; the patient has a better appetite, better digestion, and gains in strength.

In cases advanced so far as to be incurable, the patients are so much relieved that they regard the remedy as indispensable to their comfort. Its hæmostatic properties render it of great value as a preventive of hemorrhage.

I obtain the best results by using it in combination with chloride of sodium, 1 part of the fluid extract of hydrastis can. to 3 parts of a saturated solution of the salt. This fact may lead to the supposition that salt is the principal agent in effecting the cure; but I have obtained the same results by using it mixed with glycerine and water.

The volume of vapor should be moderate at first, and gradually increased from day to day as the patient becomes accustomed to its use, after which I advise deep inspirations, to insure the entrance of the vapor to the remote air-cells.

In most cases I continue the inhalations once or twice daily until I observe a decided improvement, after which I regulate the frequency according to circumstances.

Care, of course, should be taken to place the patient under as favorable hygienic conditions as possible.—Palmer, *N. E. Med. Monthly*.

The Times and Register

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MEDICAL EDUCATION.

THE failure of the proposed law to establish a Board of Medical Examiners, is popularly accredited to the Faculty of the Marion-Sims Medical College. This is the latest aspirant for honors in medical teaching in St. Louis. The Dean, Dr. Young H. Bond, has come out very strongly against what he terms a "time standard." He thus states his objections to a three-course requirement:

"1. It possesses an erroneous basis, viz.: the standard of time and not of knowledge.

"2. It is unfair in that it takes no cognizance of the superior intellectuality and industry of students.

"3. It allows no credit for previous work and study, no matter how extensive, unless pursued regularly in a recognized medical school.

"4. It is unjust because it works a hardship upon deserving young men who happen to be poor in worldly goods; the rich are thus given the advantage and preference.

"5. It perhaps would encourage laxness of teachers and indifference of students.

"6. The ends would not be accomplished, because second-class colleges would exist under its enforcement just as well as now, and they would be equally well patronized."

The standard cannot be said to be one of time and not of knowledge, unless there is an agreement, expressed or implied, to graduate the student in a given time, regardless of his knowledge. The contention of the advocates of the three-year graded course is that a thorough and systematized acquaintance with the science and art of medicine cannot be obtained in less time and without a proper grading of the course. We are not prepared to say that three years is enough for this purpose, but we do claim that the student is much better educated than under the old system. The public sentiment demands that something very different shall be given than the old course of lectures, repeated annually. The topics embraced

in the modern medical course are such as will fully occupy the time of any medical student for three years, when arranged systematically, like the curriculum of a literary college. The demand for the adoption of such a system is simply a demand for the abandonment of that flimsy pretense of a medical education, the two-year non-graded course. In the days when the student put in years of apprenticeship in his preceptor's office, before attending lectures, such a system had its advantages. It has no excuse for existence now. To the second point we may say that, no matter how great is the intellectual power of any particular student, he has no business to rush hastily through his college course. Even if he can in two years cram enough facts to enable him to reach the required average of questions answered, he cannot properly be said to be educated. The brighter the student, the greater is the wrong done him by filling his mind with half-learned, ill-digested matter.

The third objection would hold good, if it were not that the laboratory and clinical work that form an integral part of each year's studies, require the student's presence at the school. Were the art of medicine simply dependent on learning certain lessons by rote, this could be done at home as well as abroad.

The fourth objection is very flimsy. Every year we have students who work their way through college, and "deserving young men who happen to be poor" can do the same thing anywhere if they are the right sort. If they are not, there is the less reason for pushing them through college with too little preparation.

Just why the graded course, with its vastly increased work, should encourage laxness and indifference of teachers and students we are unable to comprehend, and consequently cannot reply to this point. The greatest objection to the graded course lies in the contrary fact; the enormous increase in the labor of the teachers necessitates a corresponding increase in the number of the staff, or in the time devoted by each member to teaching. The first means low salaries; the second, the giving up of private practice. The graded system, then, means a call for State or Endowed colleges, as otherwise the fees would be too large for the students to pay, or the salaries too small to secure good men.

As to the last objection, we reply that long experience has taught us not to expect the millennium, nor to reject a real improvement because it falls short of perfection.

In Philadelphia we see a good deal of the poor but meritorious youth, who shirks the entrance examinations of our colleges, and betakes himself over the border to the institutions that are generous in the matter of fees and oblivious in the way of requirements. Then in two years the youth comes back to us with a diploma; and we wonder, when we examine into his stock of medical lore, at the marvelous microscopic technique of the men who found sufficient reason to grant him a degree.

With these men come the better representatives of the two-year schools; men who answer simple questions smartly, until the examiner is tempted to look beneath the surface, when, behold, there is only the

thin veneer of the quiz-compend, and no substance back of it. The two-year course begot the quiz-compend, and the compend is simply ruin to any student who has wit enough to be a physician. Men who really have capacity for better things come to us laden with nothing but this Brummagem stuff. But as to taking time to investigate, to reason, to think, with the great masters of medical science, that is not to be thought of, in connection with the two-years' course.

Annotations.

DEATH OF THE LEIDY BROTHERS.

IT was with the deepest regret that the numerous friends of Prof. Joseph Leidy were informed of his death. For many years he has been a tower of strength to the University, where his place as a teacher may be easily filled, but not his place as a man, loved and honored above all his fellows, excepting only Dr. Agnew. Within two days of Prof. Leidy's death, his brother, Philip Leidy, also succumbed to the same disease, pneumonia. Philip Leidy had as many friends as he had acquaintances. He belonged to a race of big men—big in body, brain, and heart—that seems somehow to be becoming a rare species of late.

CITY HOSPITAL EXAMINATIONS.

THE result of the last examination for residents for the Philadelphia Hospital again demonstrates the superiority of the graded course. The honors are easily won by the Women's College, which puts in four out of five candidates. Her representatives were certainly erudite—copiously so—and fairly earned their success. The women, however, do not make as good residents as their written examinations would seem to indicate. The University has reason to be proud of her candidates this year, who showed a decided superiority over those sent up last spring. This is especially notable in the Department of Obstetrics, where Dr. Hirst is doing a work that deserves special commendation. Singularly enough, the poorest answers were given to the question relating to the instruments required for an operation. Most remarkable lists were given, comprising elaborate antiseptic dressings on the one hand, and omitting needles, sponges, anæsthetics, etc., on the other. We propose giving some analyses of these answers, to show what is the teaching of the colleges at present.

PROFESSIONAL DISTRESS IN ENGLAND.

THE profession in England appears to be in a bad way. The *Hospital Gazette* mentions a number of bankruptcies, seizures for debt, etc., among the London physicians. Then comes a series of illustrations of the manner in which the struggling practitioner endeavors to keep his head above water. Huge signboards offer free advice on certain days, and for a fee of four cents at other times. Others advertise their honorable degrees, with the additional inducement of "moderate charges." Another labels his wares with price tickets, like a Jew clothing store window. Still another distributes cards, and then calls to take them up, using the opportunity to sell his pills, etc. The *Gazette* attributes these evils to "cheap dispensaries and bogus hospitals; these, no doubt, being the outcome of an overcrowded state of

the profession." This condition of things is simply the result of the application of the law of supply and demand. As long as the supply of doctors is too great, while the emoluments are heaped up in the hands of a few at the top of the list, the professional grade is bound to be lowered. One of the Georges said that a man could not be a gentleman on less than £100,000 per annum; and the average physician won't starve for the sake of a high ethical standard. The only remedy is to limit the number of physicians who are allowed to practise, as is done in Germany with the druggists.

Book Notices.

THE THREE FATES (Initial Chapters), F. MARION CRAWFORD'S new novel, is the great feature of the May number of the *Home-Maker*.

The story is of a young journalist, and the scenes are laid in New York. The studies are realistic, and the gradual development of character intensely interesting. It is all the better for being purely American, and dealing with the practical life and questions of to-day.

INTERNATIONAL CLINICS. A quarterly collection of clinical lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology, and Otology, by professors and lecturers in the leading medical colleges of the United States, Great Britain, and Canada. Edited by JOHN M. KEATING, M.D., and J. P. CROZER GRIFFITH, M.D., Philadelphia; J. MITCHELL BRUCE, M.D., F.R.C.P., and DAVID W. FINLAY, M.D., F.R.C.P., London. Illustrated. Price per volume: Cloth, \$2.75; half leather, \$3.00. April, 1891. Philadelphia, J. B. Lippincott Company, Publishers, 715 and 717 Market street.

This initial volume contains thirty-six clinical lectures—some excellent; some passable; some trash. It is a serious question if one-tenth of the stuff printed as clinical lectures is of the slightest value to any one but the author.

TRANSACTIONS OF THE NEW YORK STATE MEDICAL ASSOCIATION FOR 1890. Vol. VII. Edited for the Association by E. D. FERGUSON, M.D.

A handsome volume of 634 pages, containing the set addresses and twenty-four papers. Among these that of Dr. Brush, on "The Mimicry of Animal Tuberculosis in Vegetable Forms," deserves special notice. Dr. Cronyn's address on medicine is pleasant reading. Dr. Manley's paper on abdominal cysts is also of interest.

FEVER: ITS PATHOLOGY AND TREATMENT BY ANTIPYRETICS. Boylston Prize Essay of Harvard University, 1890. By HOBART AMORY HARE, M.D. Published by F. A. Davis, Philadelphia and London. Cloth; pp. 166. Price, \$1.25.

In this book the author discusses antipyrine, anti-febrine, thallin, and phenacetine at length, and makes briefer reference to the salicylates and cold bathing. In every respect the work is of a higher grade than that displayed in the two other books by this author, previously noticed in this journal. More care has been given to the expression, and the tone is more moderate.

PRACTICAL NOTES ON URINARY ANALYSIS. By WM. B. CANFIELD, M.D. Published by Geo. S. Davis, Detroit. Cloth, 50c.; paper, 25c. Illustrated with a number of cuts, and with Vogel's Color Scale.

The Medical Digest.

A MODIFICATION of the Langlebert-Horand bandage in the treatment of orchitis and epididymitis is highly recommended by Martin and Wood in *University Medical Magazine*, May, '91. The body of the suspensory is made of mackintosh, lined with stout cloth, cotton wool, or cotton batting is substituted for absorbent cotton, correcting the tendency to wadding.

ABORTING PNEUMONIA.—The following treatment is reported by Oliver Rossiter in the *Medical Record*, May, '91, as aborting pneumonia (acute lobar) in its very earliest stage: The patient is given a hot pediluvium and some mild counter irritant; then:

R.—Ext. jaborandi fld. f3ij.
Liq. ammon. acet. f3j.
Tinct. aromat. f3ij.
Syr. aromat. f3j.
Aquæ dest. q. s., ad. f3iv.

M.—Sig. Tablespoonful every hour until thorough effect, then half doses every two hours.

Five cases are quoted—four successful, one failure (the case turning out to be pleurisy).

CASTRATION.—A young man, aged twenty-four years, married, a barber by trade, of slight build and of nervous temperament, consulted us a year ago complaining of severe headache, vertigo, and, occasionally, momentary loss of sight. He was severely reduced in flesh and strength, and very melancholy. Had also been suffering from gradual loss of sexual ability. He also complained of pain in left testicle, which was somewhat enlarged and tender. After four weeks of constructive treatment there was no improvement, and we advised the removal of the affected gland. This operation was followed by the happiest results—a return of health and strength, and, to his surprise, full sexual capabilities.

—J. B. Riley, *West. M. and S. Reporter*.

TEST OF PURITY FOR PHENACETINE.—If 2.5 gm. chloral hydrate placed in a small test tube be melted by immersing in a water bath and 0.5 gm. phenacetine added, a colorless solution will result upon agitation, providing the phenacetine be pure; keeping the test-tube in the water bath for five minutes produces no change, but longer heating (fifteen to thirty minutes) will produce a rose color. In carrying out this test, it was noticed that some specimens of phenacetine gave, on heating for two or three minutes, an intense violet coloration; this was found to be due to contamination with *p*-phenetidine, one of the intermediate products in the manufacture of phenacetine. Fractions of a milligram will give a very distinct coloration. As *p*-phenetidine is poisonous, producing, in continued small doses, serious kidney troubles, this impurity may explain the bad effects obtained in cases with phenacetine.

—*Am. Jour. Pharm.*

IODOFORM GAUZE IN POST-PARTUM HEMORRHAGE.—Velitz describes thirteen cases where he employed plugs of iodoform gauze for flooding, during and after delivery, and (in two cases) in the course of the puerperium. He finds that iodoform gauze is a perfectly aseptic medium in obstetrics. It is of permanent value as a hæmostatic in flooding from atony of the uterus. Only a small amount of the gauze should be packed in the uterus, so that retraction of

that organ may not be hindered. Iodoform gauze is useless, and indeed dangerous, in uterine hemorrhages due to abnormal condition of the blood. Being hygrometric it promotes hemorrhage. In this form of flooding weak solutions of perchloride of iron act best. Hemorrhage from high laceration of the cervix can only be safely checked by aid of the suture. When bleeding occurs after delivery or late in childbed, through the presence of a fibroid, the only effectual check is a thorough plugging of the uterine cavity with iodoform gauze; the cavity must be well stuffed with that material.—*Brit. Med. Jour.*

TREATMENT OF CONDYLOMATA may be summed up as follows:

1. Many disappear when kept dry by the application of powders, the best being either calomel or boracic acid.

2. In some cases an astringent, such as tannic acid, will effect a cure; but many cases require more radical measures.

3. In the more severe cases, all treatment should have as its object the destruction of the base of the growth. In ordinary cases, electrolysis is the best treatment. In very severe cases, the galvano-cautery is the very best treatment, as there is no hemorrhage, and little pain. The Paquelin cautery and escharotics almost invariably leave a painful wound, confining patient to bed.

4. After removing condylomata, the condition that caused them should be treated, otherwise they are apt to redevelop.

—Waldo, in *International Jour. of Surg.*, April, '91.

MENTHOL IN THE LOCAL TREATMENT OF ERYSIPELAS.—On February 10, 1891, at 10 A.M., the patient was seized with a chill. He walked home, about a mile, and went to bed. Ordinary domestic remedies and diffusible stimulants were employed, but the chilly sensations did not disappear for nearly two hours. Beside the sensation of cold there was violent retching, but without emesis. The temperature record is as follows:

Feb. 10, 1 P.M.	101.2	Feb. 12, 9 A.M.	101.2
" 10, 7 "	102.8	" 12, 2 P.M.	101.4
" 11, 9 A.M.	102	" 12, 10 "	101.1
" 11, 4 P.M., acetanilid.	104	" 13, 9 A.M.	99
" 11, 6 "	103.8	" 13, 10 P.M.	99.8
" 11, 10 "	103	" 14, 9 A.M.	98.7

Partly on account of the writer's lack of faith in internal medication in erysipelas, partly on account of the chronic lithemic condition of the patient and the irritability of the stomach, the treatment was limited, with the exception of a few doses of acetanilid and some other symptomatic treatment, to the local application of a 15 per cent. solution of menthol in liquid petrolatum.

—Benedict, *Buffalo M. and S. Jour.*

PROLAPSED FUNIS.—On March 3, 1890, I was called to attend Mrs. G. in confinement. My patient was of medium size, well nourished and a fairly vigorous woman, thirty-two years of age. She had been attended in her previous labors by Dr. Bodkin, of this city, and all three were described as having been difficult and requiring instrumental delivery.

Upon examination, the cervix was found to be well dilated and the bag of waters intact (though rupturing very soon); the funis was prolapsed to quite an extent, and the head presented at and was partially engaged in the superior strait, the position being right occipito-anterior.

The pelvis was narrow—a condition most frequently existing where this accident occurs—and seemed to prevent delivery except with instrumental aid.

The patient was placed in a knee-chest position, which was somewhat exaggerated by the tilting of the mattress, preparatory to returning the cord by Prof. Thomas' method. In attaching the sponge—which had been thoroughly cleansed in boiling water—to the cord, I made use of the following device: A tape, one inch wide and twenty inches long, was bifurcated at each end about eight inches. Three-quarters of an inch from the point of bifurcation of one end, a button-hole slit was made in the broad part of the tape, leaving something over two inches of broad tape intact.

The sponge was secured by tying the bifurcated ends nearest the button-hole around it, and then drawing one of these through the button-hole and again tying. The bifurcated ends of that part of the tape farthest from the button-hole were then passed around the prolapsed funis, and one end was thrust through the button-hole and the ends tied securely, and further tied around the sponge.

It is claimed for this method that the broad bearing of the tape lessens the danger of destroying the circulation between the mother and child, and that the sponge is held closely adjacent to the cord without constricting the latter nor slipping from either.

Passing a loop of the narrow part of the tape into the eye of a gum elastic catheter and securing by means of the stylet, and pressing forward and upward, with the catheter in my left hand and aiding and guiding the sponge with my right, the cord was passed one side of the sacral prominence, beyond the head of the child and into the uterine cavity.

Still keeping the patient in the same position, I proceeded to apply the forceps.

This was accomplished by reversing the procedure usual when the patient lies in a dorsal position, though still preserving the relative position of the forceps to the head of the child and the pelvis of the patient, the upper blade being passed into position first and the lower blade last.

Traction was then made and the head engaged in the superior strait, when the patient was laid on her side, and the delivery accomplished of a living child as in a case of ordinary forceps application.

The uterus was douched with a solution of biniodide of mercury, and the mother recovered without the occurrence of fever or any other untoward event, as the result of the treatment she had received.

—Emery, *Brooklyn Med. Jour.*

OPERATION FOR PERITONITIS.—There are, then, a few conclusions that may be summarized. They are simply the outcome of my own thought, and may not have any value, but they are as follows:

1. That in typhoid-perforation operation is useless.
2. That in traumatic general peritonitis, and in all cases of general peritonitis, the abdomen should be opened, washed out and drained, and the cause of the peritonitis found and removed.
3. That in cases of localized peritonitis, and in obscure cases of injury not followed by general peritonitis, it is better to follow an expectant plan of treatment, unless abscess formation can be made out.
4. That in all cases of abscess formation, opening and draining will give the most rapid convalescence, and will prevent unfavorable rupture into other parts.
5. That in view of the complications that may be found after opening the abdomen, the best interests of the patient will be consulted by having the opera-

tion done by some one accustomed to do abdominal surgery.—Ross, *Canada Lancet.*

FRENCH NOTES.

A. E. ROUSSEL, M.D.

REMEDIES FOR PERTUSSIS.—Boas has passed in review all the medicaments recently recommended for this disease.

The following is the enumeration:

1. *Antipyrine*.—Administered with success by Gessner and Sonnenberger, in doses of from $\frac{1}{2}$ to 15 grains.
2. *Antifebrine*.—Recommended by Lowe and K. C. Haw, in doses of from $\frac{1}{8}$ to $\frac{1}{2}$ grain.
3. *Phenaceline*.—Mentioned by R. Heimann.
4. *Resorcine*.—Indicated by Moncorvo, Bouchut, Callias, Maurias, and Guasta. Jayme, Selrado, and Muydan have fully confirmed the good results of this medicament in pertussis.
5. *Sulphurous Acid (in fumigations)*.—Proposed by Manly; has given brilliant results in the hands of Weissenberger.
6. *Bromoform*.—Introduced by Steep; is strongly recommended by Lowenthal H. Neumann and L. Fisher, and also by Nauwelaers.
7. *Chloroform Water*.—Steep as well as Schilling has obtained good results from its employment.
8. *Hydrate of Terpene*.—Given by Manasse, in capsules of 1 to 15 grains. Talamon has also obtained good results with the medicament.
9. *Ouabaine*.—The results obtained by W. Gammel not being greatly superior to those obtained by the administration of other remedies above mentioned, we presume that there will be no haste to introduce in infantile therapeutics so dangerous a remedy.—*La Medecine Moderne.*

THE TREATMENT OF TUBERCULOSIS BY ARTIFICIAL ATMOSPHERES UNDER PRESSURE.—The following conclusions are derived from a paper read by G. See before the Academie de Medecine:

1. The treatment consists in artificial atmospheres under pressure.
2. The sojourn of the patient in any stage of the malady should be from three to six hours a day in an apparatus containing compressed air, saturated with fumigations of creasote mixed with eucalyptus.
3. Simple inhalations of creasote or of eucalyptus are without result; compressed air alone is equally useless. The combination of the two methods causes an immense absorption of creasote by the entire pulmonary surface.
4. Creasote administered internally is not supported more than a few days or weeks. And a prolonged impregnation is necessary that will spare the stomach. Nor can subcutaneous injections of creasote be continued for the necessary length of time.
5. Creasote, of all the antiseptic medicaments, is the best supported, particularly in the form of permanent vaporization under pressure. Patients can live in this atmosphere for several months without bad results.
6. The physiological effects are most favorable; that which is most remarkable is the return of the appetite in all the cases, even when far advanced.
7. This increase of appetite permits a varied diet, and postpones the gastric troubles—perhaps the gastric lesions, which rapidly compromise the life of the patient.
8. On account of the above fact, there is a marked augmentation of bodily weight, and at the same time a manifest increase of strength.

9. The fever, no matter how intense, is reduced in the majority of cases to 37° in the morning; 37.5 at noon and at night, and continues so indefinitely after it reaches this point, which generally occurs in from eight to fifteen days.

10. Hemoptysis, rather than being a counter-indication, is cured very rapidly. I have observed a cure seven times out of seven.

11. The cough diminishes; the bronchial secretion is profoundly modified. The sputa becomes less purulent, and loses its odor; this is also true as regards bronchorrhœa and in the chronic catarrhs.

12. The dyspnoea ceases for good, whether the bronchitis be recent or ancient.

13. The malady is reduced to the local condition which does not disappear, but remains latent; this can be proved by auscultation; the râles remain present, but are limited to the cavities, while the bronchial râles all disappear.

14. This atmosphere of creasote under pressure constitutes therefore a means, not of definite cure, but of complete arrest of the malady.

15. All the secretions (mucus, pus, and blood) are profoundly modified. The general condition becomes normal.

16. The malady becomes free of all complication, and is reduced to its most simple expression, so that the patient does not consider himself affected, and the physician can only find traces of the bacilli.

—*Bulletin de L'Académie de Médecine.*

GALVANO CAUSTIC TREATMENT OF HYPERTROPHY OF THE PROSTATE (M. Bottini).—This method consists in the use of a galvano-cautery to completely destroy the prostatic tumor, or else simply to perforate it so as to procure free passage for the urine. The new apparatus of Bottini operates by means of accumulators, and produces so intense a heat that the operation requires but one séance of a few minutes duration.

Of 77 cases of hypertrophy of the prostate treated by him, Bottini obtained a complete cure in 52, a considerable amelioration in 11, and in but 12 cases only there was no obtainable result. Two patients died, but this was previous to the invention of the perfected apparatus which Bottini now employs.

—*Revue Internationale d'Electrothérapie.*

PHYSIOLOGY AND PATHOLOGY OF THE ANAL REFLEX (M. Rossolimo).—When the skin in the neighborhood of the anus or the mucous membrane is touched, we observe a reflex contraction of the sphincter. This reflex almost always exists in healthy individuals, and if very pronounced the anus is drawn upward. The anatomical center of this reflex is probably situated in the lumbar portion of the cord, if we may depend upon experiments made upon dogs. The diminution and absence of the reflex have been observed in tabes, multiple neuritis, sciatica, and the myelitis of the inferior portions of the cord. An exaggeration of the same has been noticed in myelitis of the upper regions of the cord, and in neurasthenics with cutaneous reflexes.—*La Tribune Médicale.*

TREATMENT OF ACUTE CORYZA (P. Tissier).—Acute coryza, the ordinary cold in the head, does not very often require medicinal treatment. But if we consider that this local inflammation is often the prelude to that of the larynx, of the trachea, and of the bronchial tubes; if we take into account the general malaise, the frontal cephalalgia, the alteration of the voice which results from nasal obstruction, the possible auricular complications, it may not be without

interest to know that we can often, by a simple medication, employed at the beginning, abort, or at least attenuate, the troublesome symptoms of coryza.

Repeated attacks in the same individuals may be due to trouble of the general nutrition, which it is necessary to treat first of all. But an examination of the nose is indispensable in all cases, as it often shows that the frequency of the attack is due to a local lesion, which proves to be the exciting cause, and which consequently should be attended to.

Hayem recommends inhalations of a mixture of carbolic acid and ammonia. The following formula is often employed:

R.—Carbolic acid (pure)..... 75m.
Liquid ammonia..... 75m.
Water..... 45.
Alcohol..... $2\frac{1}{2}$ 3.

Pour a few drops on blotting paper and inhale the vapor for several minutes.

This will relieve, but not always arrest the progress of the inflammation.

We should not depend upon atropine, notwithstanding that a great deal has been claimed for it.

Nasal injections are of no use at the beginning.

Antipyrine may be of use to combat the cephalalgia. The following has given the best results in our hands:

R.—Sub-nitrate of bismuth..... 90 grains.
Pulverized benzoin..... 36 "
Boric acid (not pulverized)..... 24 "
Menthol..... 2 "

Use as a snuff 5 or 6 times daily after clearing the nose. We may add $\frac{1}{6}$ grain of morphine, and 15 to 20 grains of calomel. Camphor often fails. Ichthyol, recommended by Unna, has not as yet been thoroughly tested. For the external irritation of the nostrils, as well as the upper lip, the following pomade gives good results:

R.—Sub-nitrate of bismuth..... $2\frac{1}{2}$ 3.
Vaseline..... $2\frac{1}{2}$ 3.

—*Annales de Médecine.*

CONSTIPATION (Lutard):

R.—Citrate of iron and ammonium... 30 grains.
Fluid extract of cascara sagrada... 35m.
Saccharine..... 8 grains.
Water..... $2\frac{1}{2}$ 3.

One-half teaspoonful before each meal.

—*L'Union Médicale.*

Medical News and Miscellany.

It is proposed to utilize sewage sludge for the manufacture of cement.

DR. WEIGHTMAN WALKER, a grandson of William Weightman, and a graduate of the Medico-Chirurgical College, died recently at Denver.

FROM the announcement of the Long Island College Hospital for 1891, we learn that

The regular course of lectures will hereafter be six months in duration.

Three courses of lectures will hereafter be required for graduation.

Joshua M. Van Cott, Jr., M.D., has been appointed Professor of Histology and Pathological Anatomy, vice Frank Ferguson, M.D., who has resigned.

The medical class of the present year numbered 250; the graduating class, 82.

Twenty thousand eight hundred and thirty patients were under treatment in the hospital and dispensary during the year 1890.

It will be news to many to learn that when asafœtida is distilled *in vacuo*, one of the products is of exceedingly pleasant odor. So at least a German chemist announces. Probably the odor resembles limburger cheese.

SINGULARLY, out of the four medical colleges of Philadelphia, three have vacancies in the Chair of Practice; the Jefferson, Medico-Chirurgical and Woman's Colleges having been resigned by Da Costa, Waugh and Walker, respectively.

OCULINE—a preparation intended for eye diseases generally, but more especially to impart brilliancy to an otherwise fishy optic—is stated by Dr. F. Hoffman (*Rundschau*), to be composed of water containing 1 per cent. of boracic acid and 5 per cent. of glycerin.

INCREASE IN THE USE OF ALCOHOL IN FRANCE.—From late returns it is found that the consumption of alcohol in France is largely increasing, and this despite the fact of the decrease in population. Can it be shown that there is a relation between these two processes?—*The Journal*.

SINCE the opening of the Chicago Pasteur Institute (July 2, 1890), fifty-five persons have received treatment.

Fifty-one were bitten by dogs, three by cats, and one by a skunk.

Thirty-three persons were bitten by animals recognized and ascertained of being rabid, by experiments made upon rabbits, by the death of persons and other animals bitten by the same, or by symptoms shown during life, and twenty-two persons were bitten by animals strongly suspected of being rabid.

All the persons treated are now enjoying good health.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from April 28, to May 4, 1891.

By direction of the Secretary of War, Lieutenant-Colonel James C. McKee, Surgeon, having been found incapacitated for active service by an Army Retiring Board, is relieved from further duty as attending surgeon and examiner of recruits at Philadelphia, Pennsylvania, and will proceed to his home, and report by letter to the Adjutant-General of the Army. Par. 3, S. O. 96, A. G. O., Washington, April, 28, 1891.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ending May 2, 1891.

AUSTIN, H. W., Surgeon. Detailed as member of Board of Examiners, Marine Hospital Service. April 21, 1891. Detailed as Chairman of Board for Physical Examination of Officers and Candidates, Revenue Marine Service. April 29, 1891.

GODFREY, JOHN, Surgeon. Detailed as member of Board of Examiners revoked. April 21, 1891.

IRWIN, FAIRFAX, Surgeon. Detailed as Recorder of Board for Physical Examination of Officers and Candidates, Revenue Marine Service. April 29, 1891.

CARRINGTON, P. M., Passed Assistant-Surgeon. To proceed to Fernandina and Jacksonville, Fla., as Inspector. May 1, 1891.

STIMPSON, W. G., Assistant-Surgeon. When relieved, to proceed to Savannah, Ga., for temporary duty. May 2, 1891.

OMITTED FROM PREVIOUS LIST.

BROWN, B. W., Assistant-Surgeon. Detailed as Medical Officer, Revenue Steamer "Rush," during summer cruise. April 14, 1891.

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The Times and Register.

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ORIGINAL ARTICLES.		ANNOTATIONS.		PAGE	
WIRING OF THE VERTEBRÆ AS A MEANS OF IMMOBILIZATION IN FRACTURE AND POTT'S DISEASE. By B. E. Hadra, M.D., Galveston, Texas - - - - -	423	Clevenger's Brain Cap - - - - -	434	Tubercular Meningitis. <i>Winter</i> - - - -	438
OBSERVATIONS ON KOCH'S LYMPH. By Joseph Jones, M.D. - - - - -	425	The Neurotic Complications of Uterine Disease - - - - -	434	Catheter Stricture. <i>Brown</i> - - - - -	438
NOTES ON THE USE OF ARISTOL. By Kingman B. Page, M.D. - - - - -	426	Schuylkill Water - - - - -	434	Immunity Against Influenza Furnished by Vaccination. <i>Goldschmidt</i> - - - - -	438
SLACKED LIME AS A DISINFECTANT. By A. F. Myers, M.D., Blooming Glen, Pa. - -	427	LETTERS TO THE EDITOR.		A Liquid Resembling Koch's Lymph. <i>Hueppe</i> - - - - -	438
SOCIETY NOTES.		Mutter Museum of the College of Physicians. <i>Hinsdale</i> - - - - -		Treatment in the Ulcerated Throats of Scarlet Fever and Diphtheria. <i>Manning</i> -	438
NEW YORK ACADEMY OF MEDICINE - - - -	427	Jacket for Chest Affections. <i>Buck</i> - - -		Treatment of Scarlet Fever. <i>Thorne</i> - - -	438
A Case of Neuromimesis. <i>Townsend</i> - -	429	Low Temperatures. <i>Seilikovitch</i> - - -		Excision of Entire Tongue with Scissors. <i>Brit. Med Jour.</i> - - - - -	438
The Place of Fixation in the Traction Treatment of Hip Disease. <i>Lovell</i> - - -	430	BOOK NOTICES.		Treatment of Tuberculosis by Tuberculin. <i>Cheyne</i> - - - - -	438
THE POLYCLINIC.		Electricity: Its Application to Medicine. <i>Adams</i> - - - - -		Yet Another New Treatment of Phthisis. <i>Ste</i> - - - - -	438
JEFFERSON MEDICAL COLLEGE HOSPITAL:		A Natural Philosophy. <i>Quackenboss</i> - -		Quinine by Synthesis. <i>Grimaux and Armand</i> - - - - -	439
Traumatic Hydrocele. <i>Brinton</i> - - - -	431	Materia Medica and Therapeutics. <i>Shoemaker</i> - - - - -		Indigo as an Emmenagogue. <i>Jones</i> - - -	439
The Internal Opening of a Fistula in Ano. <i>Brinton</i> - - - - -	431	A Text-book of Bacteriology. <i>Fraenkel</i> -		Foreign Bodies in the Cornea. <i>Memphis Journal</i> - - - - -	439
PHILADELPHIA HOSPITAL:		Pharmacology of the Newer Materia Medica - - - - -		Extraction of Broken Needles. <i>Steele</i> - -	439
Operations on the Intestines. <i>Ashton</i> - -	431	THE MEDICAL DIGEST.		Urethane. <i>Rademaker</i> - - - - -	439
The Shoulder-joint in Rheumatic Inflammations. <i>Walker</i> - - - - -	431	Practical Hints. <i>Southern Med. Record</i> -		A New Antiseptic. <i>Lancel</i> - - - - -	439
Right Sided Extension of the Area of Heart Dullness. <i>Walker</i> - - - - -	431	Sublimate and Staphylococcus Aureus. <i>Abbott</i> - - - - -		Albuminuria Caused by Antipyrine. <i>Tompkins</i> - - - - -	439
Thrill Felt at the Apex. <i>Walker</i> - - - -	431	Severe Pain in Anterior Extremity of Urethra. <i>Lane</i> - - - - -		Scirrhus of Mamma in the Male. <i>Maritime Med. News</i> - - - - -	439
The Murmur of Endocarditis. <i>Walker</i> -	431	Chloral vs. Iodine for Injecting Cavities. See Laryngitis in Vocalists—Treatment. <i>Faulkner</i> - - - - -		The Hand spray in the Treatment of Fevers. <i>Lynch</i> - - - - -	439
EDITORIALS.		Factor of the Lochial Discharges. <i>Broxall</i> -		The Physiological Action of Carbon monoxide of Nickel, Ni (CO) ⁴ . <i>McKendrick and Snodgrass</i> - - - - -	440
THE VIRGINIA STATE BOARD OF EXAMINERS - - - - -	433	The Treatment of Rheumatic Hyperpyrexia. <i>Male</i> - - - - -		Galvanism in Amenorrhœa. <i>Strong</i> - - -	440
		An Alleged Cure for Typhoid. <i>Med. Press and Circular</i> - - - - -		Forms of Amenorrhœa, with Treatment. <i>Davenport</i> - - - - -	440
		Parenchymatous Aspiration. <i>Occidental Med. Times</i> - - - - -		Treatment of Deformities Following Infantile Spinal Paralysis. <i>Willard</i> - - -	440
				MEDICAL NEWS AND MISCELLANY, 441	
				ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - -	444
				NOTES AND ITEMS - - - - -	iv, xii

Original Articles.

WIRING OF THE VERTEBRÆ AS A MEANS OF IMMOBILIZATION IN FRACTURE AND POTT'S DISEASE.¹

By B. E. HADRA, M.D.,
GALVESTON, TEXAS.

PRESENT surgical interference in fractures of the spine consists in the removal of loose bones and in resection of parts of the arch, in order to free the spinal canal. The latter is done when grave symptoms indicate pressure upon the cord, or morbid changes of it or of the dura mater. Thus, mostly older cases will be submitted to resection. It is my purpose to propose to you a means of adaptation and retention of the broken ends before such damage is done, or before vicious consolidation has taken place.

The present apparatus of immobilization by position, extension, splints, braces, dressings, etc., is evidently sufficient only in the lightest and most tractable cases, which, unfortunately, constitute only a very small percentage. Aside from the enormous inconvenience, all these helps are ineffective when the broken ends are thoroughly separated. I remember two cases of dorsal fracture where I had the patients encased in plaster of Paris from the axilla down to the thigh. I know they were not benefited, but were made most unhappy by the treatment. It is simply impossible to keep the loosened vertebræ from gliding upon each other as long as no fixation can be had all around. Obviously, though, the con-

¹ Read before the meeting of the Texas State Medical Association.

tents of the thoracic and abdominal cavities cannot be immobilized. Still, absolute apposition is here more a necessity than in other fractures, because, aside from giving the broken bones a chance to properly consolidate, it must be the main aim to protect the cord and the spinal nerves against pressure, twisting, and also against changes due to irritation and to extension of morbid processes from the surrounding tissues. What do we do in other fractures if the usual means do not suffice to keep the parts well adapted? We do the most natural thing in the world; we fix them to each other by direct means—clamps, nails, wires, sutures, and so on.

Now, there is no good reason why vertebral fractures should not enjoy similar advantages. There is no danger in cutting down on the vertebral column, as all operators testify, as long, of course, as the cord and the nerves remain undisturbed; and even they stand a good deal more interference than is generally conceded. It is, then, a question of feasibility and efficacy. Theoretically there should be no doubt about it. Still, practical evidence alone will satisfy nowadays. The literature—at least that at my command—offers only one case where direct fixation of broken vertebræ was planned and executed, and I think this case deserves the fullest attention. It is that of Dr. W. T. Wilkins, a short history of which is given by Prof. Keen in the "Reference Hand-book of Medical Science." It reads thus:

"I find reported a case of a child born with a hunch on its back, the mother having been severely injured the day before its birth. On operation, on the day after birth, the last dorsal and the first lumbar vertebra were found separated a half-inch, and a hernia protruded through the fissure. The spinal cord was pushed to one side. The hernia was re-

duced, the two vertebræ held together by a figure of 8 carbolized silk ligature, passing through the intervertebral notches of the two vertebræ, above and below, and the child was practically well in a few days.'

It was my lot to test the problem in a case which was operated on last December, and I regret that I, at that time, did not know anything of Dr. Wilkins' case. I fastened together the spinous processes of the sixth and seventh cervical vertebræ by silver-wire loops, in a case of fracture which had been acquired nearly a year before. The patient is still at the John Scaly Hospital, and I must confess is not perfectly well yet, though the efficacy of the operation has been fully demonstrated. To give a short history of the case, it may be stated that a man of thirty years of age, working as waiter in a restaurant, fell to the floor, striking with great force on his buttocks. Immediately after, he felt intense pain in his neck, and was unable to move it. On examination, the sixth cervical vertebra was found pushed forward and turned around its vertical axis to the right, whilst the spinous process of the seventh vertebra appeared unusually prominent. Patient could not open his mouth more than an inch, from what cause I could never understand. Exsection was made by the head, and as the parts seemingly returned to their normal position, the neck was put in a firm cravatte. Patient, from reasons of no medical interest, left the St. Mary's Hospital a few days after his admission, and returned to his former occupation, wearing constantly his apparatus, getting along well enough with an occasional hypodermic injection of morphine. But once, when he imprudently bent his neck in a rapid and forcible way, the cravatte having been left away, he fainted, and when recovered could not stand upright. His head and neck were turned to the right, and kept perfectly stiff; right hand became numb, right arm weak; girdle pains around his upper abdomen; bladder not fully under control; slight priapism. In such condition he came to the John Scaly Hospital on November 1st, 1890, ten months after the first accident. His face flushed up on the slightest provocation; his mouth could not be opened over an inch; the left upper portion of the trapezius muscle was hard and protruding, forming a tumor; his right hand colder than the left; extreme hyperæsthesia on the right side; head was rolled around to the right, and the vertebræ in same position as on the first observation; muscles, though, reacted alike on both sides of the body to either current. Patient was put under chloroform, not being able to stand any manipulation without an anæsthetic. Head and upper portion of neck very movable, and crepitation distinctly heard. Reduction was easy, and the stiff cravatte was applied again. In spite of frequent adjustment and modification of the retaining apparatus, patient grew steadily worse. Pains in back, arms and around abdomen became unbearable, and walking impossible. He was in such a pitiful condition, that he insisted upon any operation which would give the faintest hope of relief. I finally consented to cut down on the place of injury, which I did on the 22 of December. My plan was to remove loose bones, if present; to sever the posterior ligaments, if they should be thickened and contracted; and finally, to wire the spinous processes, in order to steady the vertebral column.

From the improvement setting in every time the bones were well adjusted, I inferred that there was no serious change within the vertebral canal, nor in the cord itself. I therefore did not consider the opening of the canal called for. Not finding loose bones,

I severed the ligamentum nuchæ and the interspinous ligaments transversely in several places, so as to expose the spinous processes fully, and also in order to remove the interference of the perhaps thickened and contracted ligaments which could have acted as an impediment to the replacement and retention of the dislocated parts, exactly as in other fractures or dislocations. I am satisfied that this part of the operation was not only unnecessary, but that it caused all the following inflammatory symptoms, as a good deal of lacerating was unavoidable. The main aim of the operation, the wiring of the sixth and seventh spinous process was done with silver wire, carrying it four to five times around in a figure of 8. The wound which extended from the occiput down to the first dorsal vertebra was then closed, a small drainage tube inserted right over the place of wiring and the stiff cravatte reapplied. Patient did not improve for several days, but then gradually got better. After some weeks I thought that the wire had become loose, because he began to exhibit some of his former symptoms. He was put under chloroform again, the wire removed, and a new one fixed on. On this occasion it was easily seen that the lower end of the fractured spine slipped away from the upper for about one and a half inches to the right. From now on improvement went on more rapidly. Patient was able three weeks ago, that is twelve weeks after the operation, to move his head in a normal way in every direction, without pain. He could open his mouth fully, walk as well as anybody else; no headache; no trouble with bladder or bowels. The right arm remained somewhat weaker, but was otherwise normal in all its functions and of normal sensation. The favorable condition though made me, I fear, too careless. I allowed him to be without the bandage occasionally, and removed the wire, as it kept a fistulous ulcer from closing. He became worse again, and has now considerable pain in his right arm and shoulder. The spinous process of the sixth cervical vertebra is very tender on pressure, and requires further attention, as the probable cause of the new trouble. Otherwise patient is well, and can make use of his neck without any difficulty.

This is my case, which shows that the operation is feasible and effective. But I would be a poor surgeon if I had felt satisfied with my method and the course of my case. Further experiments on the cadaver, and further reflection has led me to believe that the proposed wiring is one of the most promising, and at the same time simplest surgical procedures, provided that it be so modified as I will describe it hereafter. Of course, it is intended only for the readjustment and retention of the broken bones, therefore, in some cases, it may fill all the indications; in others, it will simply be an addition to other operations.

But before proceeding I show you here a vertebral column, on which two adjoining spinous processes have been wired together in the three portions of the spine. Of course, more than two may be joined if necessary. You see how firmly the vertebræ hold together, and how resistant they become. In fact, common forces, as experienced in human life, are hardly able to undo the fixation of the two lumbar vertebræ. Of course, this method is possible only when the spinous processes are not fractured themselves. If so, one would have to resort to the wiring of the transverse processes, as shown also on the model.

The operation consists then of the following simple acts. A good long skin incision, the center of which should be over the seat of fracture; next the muscles

on either side of the spinous processes should be lifted up and drawn aside with blunt instruments, but not more than to allow one to feel the contours of the bones. Then a stout curved needle, armed with wire, is carried through the interspace between the spinous process of the broken vertebra, and that of the next upper one, as deep as possible; brought out, entered again into the next inferior interspace; brought out on the other side; entered there again into the next lower interspace; carried around the spinous process of the vertebra, below the fracture, and again carried through the middle interspace, and meeting the wire where it entered, well twisted together to a knot. In short, a figure of eight loops is carried around the spinous processes of the broken vertebra and that of the next lower one, which may be repeated as often as seems advisable. In the lumbar portion of the spine simple loops will suffice, as the processes are almost horizontal. Then the wound is closed with or without drainage. Under circumstances three or even more vertebræ may be fixed together.

All this can be done in a few minutes. The operation is nearly bloodless; involves no great laceration of tissues, and can be made thoroughly aseptic. The wires are well secured in their position by the ligaments, which remain undisturbed.

More difficult is the wiring of the transverse processes. Here the muscles have to be lifted and drawn aside much more extensively. In order to avoid impeding nerves in the loops, I think it would be best to do it as shown on the model; that is, first to surround one process, and then carry the thread to the next one, and again tie it here by a loop, so as to have only one wire in the interspace.

I cannot resist the temptation to connect my device also with the treatment of Pott's disease. Here, too, the indication in cases where the abscess or carious bones do not call for other surgical attempts, is mainly to steady the vertebral column in order to protect the cord, to prevent the diseased bones from rubbing on each other, and, finally, to make the outcome, in regard to disfigurement, as favorable as possible. Judging from my concededly limited experience, and from theoretical deductions, the proposed procedure will do better than braces, corsets, plaster jackets and the like. It seems to me called for as soon as displacement of the bones is noticed; but even if a full kyphosis should be established, it will be proper to put the patient under an anæsthetic, and to wire together the spinous processes, provided that the column can be straightened to a satisfactory extent. It occurred to me that the fixation of the spinous processes acts like a lever on the bodies of the vertebræ in front, as you can see on my model. This is a great advantage in cases where intervertebral disks are destroyed, or where cavities have formed by necrotic destruction of the vertebral bodies. Evidently such gaps would be held open, whereby better drainage would be procured, the contact of the diseased surfaces prevented, and the filling up by new tissues allowed in the most advantageous configuration. Obviously also the wiring could be added to other operations, such as establishing drainage for the abscess, or to the removal of necrotic bone, or to the trephining of the arch, etc.

Summing up, I do not claim that my proposition is an operation fitting every case of spinal fracture or of spondylitis; it is simply a method of holding the broken or diseased parts together better than any other method, and with considerably less annoyance to the patient. In many cases it may do by itself, in others it will be a desirable addition to other operations. In

others again, it will be as fruitless as all other methods at our disposal. The operation is simple and free of danger, and if only a small portion of the advantages set forth could be attained, it would constitute a very desirable addition to the present means to combat such formidable and intractable ailments.

OBSERVATIONS ON KOCH'S LYMPH.¹

By JOSEPH JONES, M.D.

THAT this agent or drug was not used in the treatment of diseases under my care in the wards of the Charity Hospital of New Orleans was due to the following causes:

(a) No case presented itself which I deemed suited to the application of "Koch's Treatment," without danger to the welfare of the patient.

(b) No case presented itself of which the diagnosis was so obscure as to require the institution of a doubtful experiment.

(c) Without exception, the patients under my treatment and care in the wards of the Charity Hospital declined to submit to this mode of treatment.

(d) The extensive prevalence of influenza in a severe and often fatal form, and which attacked, with special violence, those suffering with phthisis pulmonalis, rendered the injection of an irritating agent into the living human body hazardous.

CHEMICAL AND MICROSCOPICAL EXAMINATION OF LYMPH.

The objectives employed in the following observations ranged from $\frac{1}{8}$ to $\frac{1}{15}$ of an inch. These precautions were taken to secure such results as were possible in the chemical and microscopical manipulation of the small amount of material.

PROPERTIES OF KOCH'S LYMPH.

1. Reddish brown liquid, with oily movement and consistence of thin glycerine.
2. Clear, with a few flocculi.
3. Musty odor, like that of stale beef extract.
4. When burned in flame of alcohol lamp, emits an odor like burning beef extract.
5. Reaction strongly alkaline.
6. When a drop of the undiluted extract was placed in the eye of a living animal, it appeared to cause a disagreeable sensation, attended with closing of the lids temporarily, but it induced no permanent irritation or inflammation. A repetition of this experiment caused no perceptible injury to the eye or animal.
7. No appreciable effects were induced by the "lymph," when administered internally, by the mouth, to living animals.

The fluid, in its innocuous effects, when applied to living mucous membrane, differed from the poison alkaloids, and from hydrocyanic acid and the cyanogen compounds.

8. Mixes rapidly and freely in all proportions with distilled water.

9. When injected with varying degrees of dilution with distilled water (50 per cent., 25 per cent., 10 per cent., 1 per cent., or 0.1 per cent.) into the subcutaneous tissues of living animals (cats, rabbits, and guinea-pigs), only slight local irritation and no sloughing were induced at the points of injection. The injections were followed by fever of greater or

¹ Extract from the report on the use of Koch's lymph in the New Orleans Charity Hospital, of which report advanced sheets have been kindly furnished us by Prof. Joseph Jones, who received the lymph from President Harrison.

less duration. The animals appeared to regain their normal conditions in varying periods of four to seven days, but were reserved for future observation. The liquid appeared to be far inferior in immediate effects, when injected subcutaneously to prussic acid, strychnine, and serpent poison; neither were its manifest effects identical with septic poison.

10. Uncoagulated by heat.
11. Uncoagulated by nitric acid.
12. Uncoagulated by heat and nitric acid.
13. Chemically pure absolute alcohol threw down from the "lymph" a flocculent, whitish deposit.
14. Solution of nitrate of silver threw down a heavy, white deposit, showing the presence of chlorides in considerable amount.
15. Solution barium salts gave slight precipitates.
16. Stannous salts gave no evidence of the salts of gold.

17. Microscopic examination of the undiluted "Koch's lymph," with objectives varying from $\frac{1}{8}$ to $\frac{1}{15}$ of an inch, revealed the presence of minute ovoid and rod shaped bodies, resembling the spores and bacilli of the "*bacillus tuberculosis*," as described by the eminent microscopist, Professor Robert Koch.

These organisms, in their size and structure, and behavior with staining agents, corresponded with the "*bacillus tuberculosis*."

18. When the lymph was diluted with boiled distilled water, and preserved in chemically clean test-tubes, the mouths of which were carefully guarded by antiseptic cotton wool, the fluid became turbid. Microscopic examinations revealed the fact that the turbidity was due to the multiplications of organisms presenting physical and chemical properties similar to those of the "*bacillus tuberculosis*."

19. The addition of a drop of the "lymph" to "Pasteur's sterilized liquid" was followed by the development of the spores and slender, rod-shaped organisms resembling the "*bacillus tuberculosis*."

20. The spores and bacilli of "Koch's lymph" were cultivated, with the necessary precautions to exclude all external germs from the atmosphere and external objects, upon various substances or media, as serum, blood, boiled potato, coagulated white of egg, and boiled aseptic crystallized sugar.

21. The cultivations in fresh blood were strongly alkaline; those of potato, white of egg, and crystallized sugar were acid.

22. When a small quantity of the "lymph" was added to a carefully sterilized solution of crystallizable sugar, the clear solution became turbid from the development of bacilli, and emitted a sweetish odor, similar to that which I have often observed to be exhaled by patients suffering from phthisis pulmonalis in the advanced stages.

CONCLUSIONS.

(a) The active principles of "Koch's lymph" appear to reside in a colloid nitrogenized compound, coagulable by absolute alcohol, and in living germs—micro organisms—spores and bacilli, similar to those of the *bacillus tuberculosis*, and capable of multiplying within and without the living organism.

(b) The potent effects of "Koch's lymph," when introduced into the blood of healthy and diseased human beings, may be referred, in part at least, to the rapid multiplication and action of micro organisms, similar to, if not identical with, the *bacillus tuberculosis*.

(c) The results of the chemical and microscopical examination of the contents of this vial of "Koch's lymph" have led me to exclude this liquid from the list of remedial agents.

I beg to be permitted to say that, in the effort to discharge what appeared to be my duty, I have endeavored to serve the art and not the trade of medicine, believing that honorable, legitimate medicine has no secrets to conceal, and holds no remedy which is not the common heritage of the glorious brotherhood of the noble republic of science.

NOTES ON THE USE OF ARISTOL.

By KINGMAN B. PAGE, M.D.,

Surgeon to the Out-patient Department, Harlem Hospital, New York City.

ON the introduction of this drug to the profession, it was claimed that it would entirely supersede the use of iodoform; for it possessed not only all its virtues, but the great additional ones of being odorless and non-imitating.

As is well known iodoform is a component part of the great majority of our surgical dressings, and is the main dressing of the minor wounds, ulcers, etc., such as apply at the out-door departments for relief.

Desiring to test this new surgical panacea, through the courtesy of Dr. Truax attending physician of the hospital, we were enabled to obtain an ample supply of aristol, instituting in the out-patient department a series of clinical tests to determine the comparative values of aristol and iodoform.

From the abundant material at hand, we were able to make what may be termed control tests, *i. e.*, to dress analogous cases with either aristol or iodoform, and others with a simple antiseptic dressing; by this means we could readily note the effects of these drugs in aiding the reparative process of nature, diminishing suppuration, the presence or absence of irritation resulting from their use. The cases treated by simple antiseptic dressings (carbolic bichloride or Tiersch solution), afforded us the opportunity of observing the process of repair and comparing its advance with that in cases treated with aristol or iodoform.

For the purpose of convenience the cases were noted in three classes: *Series I*, wounds uniting by primary union. *Series II*, ulcers (non-specific) or wounds healing by granulation. *Series III*, specific ulcers, wounds suppurating freely, erysipelas, cellulitis, bites, human, canine, etc.

Series I.—Comprised 71 cases, of these 31 were treated with aristol, 26 iodoform, 14 plain dressing. In this class aristol was used in powdered form, iodoform in powder, saturated ethereal solution or in collodion.

In all cases the rate of union appeared to be about the same, save that in 12 cases treated with iodoform collodion primary union took place in the whole number, while suppuration occurred in 2 cases treated with powdered iodoform, and 1 in 7 with aristol.

Series II. Fifty-one cases; 21 with aristol, 21 with iodoform, 9 with other dressings. This series (wounds healing by granulation) afforded us the best opportunity for our tests. In chronic ulcers where there was more or less discharge (18 cases), aristol caused a marked dermatitis in each case in which it was applied, while this happened but three times with iodoform. As a stimulant to the granulations aristol did not in any way, in the other cases, reveal a superiority to iodoform, while it excited a dermatitis in about 50 per cent. of the wounds to which it was applied, while this occurred in but 8 per cent. with iodoform.

Series III. Seventeen cases. These were all primarily treated with aristol in powder or 10 per cent. ointment; dermatitis was excited in 5 cases; in cases of erysipelas or cellulitis aristol was without effect in retarding the spread of the disease or on the form-

ation of pus. Iodoform was substituted; excited a dermatitis twice, and in several cases readily retarded suppuration.

To summarize, therefore, we find that 144 cases were noted, comprising a large variety of lesions; that in none of these did aristol in any way reveal a superiority to iodoform as an antiseptic or stimulant to repair; that it excited dermatitis much more frequently than iodoform did, particularly in cases where there was moisture or secretion of pus.

Therefore we conclude that aristol does not in any way prove superior to iodoform, and that, in the general run of hospital or private work, it is not likely to supplant it (iodoform).

70 EAST ONE HUNDRED-AND-TWENTIETH STREET.

SLACKED LIME AS A DISINFECTANT.

BY A. F. MYERS, M.D.,
BLOOMING GLEN, PA.

IN extolling the virtues of the many disinfectants the profession, in its wild rush for something new, seems to have entirely ignored the efficacy of slacked lime. The various calcium preparations are deserving of more general recognition than is accorded them by some, and need only to be extensively employed to be appreciated. No one at this day denies their beneficial effect in the different disorders of the alimentary canal, and as a local applicant in various virulent affections.

In typhoid fever slacked lime is a very effectual means of destroying the contagious germ as it is found in each evacuation of the bowels. It is convenient and inexpensive, and, if properly instructed how to use it, the nurses met with in a general country practice will willingly execute your directions, for being already aware of the utility of lime as a whitewash, and its power to destroy offensive decaying matter, vegetation, and objectionable insect life about farm buildings, they will fully appreciate your efforts at exterminating this dread disease, and you will have indefatigable assistants.

When attending a case of typhoid fever, I will invariably exercise a particular supervision in the use of disinfectants. I will call for the slacking pot—and all country folks have one somewhere—and direct them to procure a lump of fresh lime, and pour on enough hot water to slack it well, and later add a sufficient quantity of water to keep it moderately thick. I will select a place and have a hole dug about two feet deep, near the out-house, or at some other place equally safe distance from their water supply, and have the lime kettle, together with an old cup, or an empty tomato can, at its side, and direct the nurse to deposit all excretions in this cesspool, and immediately throw upon the stools a cupful of this slacked lime. Frequently I direct an excess of lime to be used, and each day throw upon this a covering of earth, and effectually destroy and bury all poisonous substances. Of course, in a week or more another pit must be made; but by this means it is well nigh impossible for any contagious matter to be carried away by overflowing gutters or melting snow, and thereby menacing the neighboring water supply. This is an important part, and is frequently looked after. The emptying of the patient's vessel into the closets frequented by other members of the family is strictly prohibited, for the reason that its contents cannot be properly disinfected there. I have followed this plan for a number of years, and have been able to confine this dread disease to but a single member of a family at a time, and not impress

them with apprehension when informed that a case of typhoid fever is within their household.

Society Notes.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPÆDIC SURGERY.

Stated Meeting April 17, 1891.

SAMUEL KETCH, M.D., Chairman.

DR. H. L. TAYLOR presented for diagnosis the case of a boy who was taken suddenly sick, without known cause, on September 12, last, with a chill and irregular fever, which was soon followed by severe pain and swelling about the upper part of the thigh, especially in front. He was examined late in November, when he presented hardness and swelling of the upper part of the thigh with some œdema, and at times below the knee. There was fluctuation on the outer aspect of the thigh, five inches below the anterior superior spine, and a table-spoonful of serum was several times withdrawn. The thigh was extremely flexed, abducted, and everted, and there was but little hip motion, but no muscular spasm. The patient improved in health rapidly; the inflammatory symptoms subsided, and the deformity was reduced to a moderate one by rest in bed, with gentle counter-extension. The patient now walked with a considerable limp, but without support. There was a large, hard swelling connected with the right side of the pelvis, found on pressing above Poupart's ligament, and also above and in front of the hip. The patient's health was good.

DR. A. B. JUDSON thought that the abduction and fixation present indicated articular osteitis of the hip, obscured, in this case, by unusual deportment of the abscesses.

The Chairman thought it was very unusual for hip disease to come on with such sub-acute symptoms, and the history seemed to point rather to some infectious disease than to a chronic joint lesion.

DR. ROYAL WHITMAN presented a series of cases illustrating the treatment of knee- and ankle joint disease in young infants by an adaptation of Thomas' splint. He claimed that by the routine use of extension, not merely for its effect on the contracted knee, and as a factor in the production of rest, but for the purpose of retaining the brace in position instead of using the ordinary shoulder strap, the constant shifting of the ring, which occurs in infants, is avoided, and hence the irritation of the skin and motion at the diseased joint were reduced to a minimum. He advised the use of the brace in cases of ankle joint disease, even when the infant had not begun to walk, on the principle that children, long before they walk, are making constant attempts to stand, and, in creeping or otherwise, expose the joint to injury.

The brace is made of light material, with two leather straps attached to the foot-bar. The extension plasters are applied to the leg, usually below the knee, and the leg is firmly bandaged from the toes to the groin, and the brace applied with sufficient extension to hold the ring firmly in its place. The leg and brace are then firmly bandaged to one another, from the foot to the ring. Such an arrangement provides rest, compression, and protection, the effect of which in painful, contracted, and suppurating joints is at once apparent.

In ankle joint disease, the foot being at a right angle to the leg, a well-fitting plaster bandage is first applied.

It seemed to the speaker that the treatment of joint disease in infancy should be carried out on the same principles as apply to older children, and that in cases of knee and ankle-joint disease the conditions are most satisfactorily met by the Thomas brace. With ordinary care its use was attended with no difficulty, and it was not unusual to see infants of from fifteen to eighteen months of age walking about on the brace and high shoe without discomfort.

DR. V. P. GIBNEY said that his clinical experience had taught him that it was almost impossible to hold the limb down with plaster of Paris in these small children, for, notwithstanding the performance of tenotomies, as soon as the plaster becomes soft—which it will do speedily, as a result of the dribbling of the urine, and from other causes—the limb will begin to flex again. This adaptation of the Thomas splint he considered an admirable one.

DR. JOHN RIDLON said that this method of employing traction had been used by Thomas years ago, but more recently that surgeon had preferred to straighten the cases, with or without an anæsthetic, and then put them up permanently in a straight position with absolute immobilization, and with as much traction as could be obtained by a full-length caliper splint. He thought that direct backward pressure, with a pad above and below the knee, and a strap behind the knee, was better than the method of bandaging adopted in one of the cases presented. For the ankle-joint cases he thought a metal splint was more satisfactory than the plaster of Paris. He had repeatedly tried plaster of Paris in these cases, and had found that it failed to keep the limb straight.

DR. JUDSON doubted whether, in larger children, the splint shown could be relied on to secure both fixation and protection.

DR. A. M. PHELPS disagreed entirely with Dr. Ridlon as to the superiority of a metal splint over the plaster of Paris. He had used the Thomas splint for the past four years as a protection to the joint, but he did not approve of producing extension by it, as this caused intra-articular pressure. His plan was to reduce the deformity under ether, and then apply plaster of Paris. He did not think the splint exhibited was any better than plaster of Paris for small children before they began to walk.

DR. W. R. TOWNSEND said that it was because they had experienced so much trouble from excoriations in the use of plaster of Paris at the hospital that Dr. Whitman had devised this arrangement.

DR. N. M. SHAFFER saw no necessity for either this splint or for plaster of Paris. There had been no trouble from the apparatus which he had employed in his practice, and he thought it gave even better protection than the Thomas splint. The deformity is usually made too important a factor in the treatment. A study of nature's methods would show that the deformity should be reduced by modifying rather than by increasing the intra-articular pressure, and Dr. Whitman committed an error in attempting to reduce the deformity quickly, for, in the majority of cases, nature endeavored to warn us against this rapid reduction of the deformity by establishing a condition of muscular resistance. The slow method of reducing the deformity, in his opinion, gave better ultimate results.

The Chairman endorsed the views of the previous speaker. Some of these cases had been stated not to have had reflex spasm, but he could not under-

stand how this could be the case, as, in his experience, spasm had been invariably present. The apparatus acted upon the principle of the simple perineal crutch, and only emphasized the necessity for using this crutch in all these cases.

DR. WHITMAN, in closing, said that the only claim to originality which he made was in the manner of holding the brace firmly against the groin. He was fully convinced that plaster of Paris was very undesirable for young infants, as the joint was often swollen to the size of the thigh, and the plaster speedily worked down and became loose. However beautiful might be the theory of increasing the intra-articular pressure by traction made with this splint, the fact still remained that while the limb was being brought down, these children were comfortable, their general condition improved, and the joint diminished in size. The bandaging to which Dr. Ridlon alluded was not for the purpose of straightening the leg, but to hold the brace firmly. He considered that the deformity was of much importance, and that the sooner it was reduced, especially in knee disease, the better. If seen moderately early, one could be sure that recovery without deformity would occur, with the exception of some shortening.

DR. GIBNEY presented a case of anterior poliomyelitis, which had so affected the adductor group of muscles as to cause marked deformity of the limb. When six years old the patient was reported to have had a high fever, accompanied by inability to move the legs. This condition rapidly improved, and then it was noticed that the child could use the limbs but little. He had first seen the case on November 16, 1887, at which time there was complete adduction of the limb; the hamstrings were considerably shortened, and there was some flexion at the hip. Shortly after he began treatment by stretching the hamstrings. The case passed under the care of a distinguished general surgeon, who presented her to the Surgical Society as a case of congenital dislocation of the hip. She returned after a time, and the extension was resumed. On November 22, 1889, she was anæsthetized, and by an open incision over the tensor vaginæ femoris, and flexors of the thigh, he was able to divide freely the contracted tissues, until the limb could be brought into good position, when he applied plaster of Paris from the axilla to the toes. After two or three weeks a brace was applied. On October 22 another operation was necessary. On March 26, 1890, the limbs were parallel; and at present it is difficult to produce any luxation of the hip joint; the limbs are of equal length, and the child can walk fairly well without any apparatus. He thought the case showed the advantages of protecting the weakened muscles for a long time.

DR. SHAFFER said that he wished to emphasize the important part played by the tensor vaginæ femoris, this muscle and the sartorius often being the principal opponents to good locomotion. He had seen several cases in which the general surgeon had made a diagnosis of dislocation of the hip, owing to the extreme malposition of the thigh. Division of the tensor vaginæ femoris, and of the muscles attached to the anterior spine of the ilium, is the only method of treating these cases successfully, and, in order that the division be thorough, he preferred the open method to the subcutaneous.

DR. GIBNEY presented two cases of arrest of development.

In the first, in addition to some deformity of the hands, the patella and knee joints were rudimentary.

There was limitation of motion, and rotation inwards of the femur and outward rotation of the tibia, and the patella was displaced to the outer side of the femur. There was the usual marked degree of knock-knee, and the double congenital equino-varus. She was admitted to the hospital on June 18, 1889, and at that time was eight years of age, and in good general condition. After a number of tenotomies and other minor operations, it was found that, although there was some improvement, there was still marked knock knee, and obstinate equinus. Accordingly, on October 28, 1890, the astragalus and a portion of the cuboid were removed from the right foot, and the same operation was performed on the left foot on January 19 of the present year. She is now walking with apparatus, but bids fair to have a good pair of limbs.

The second case was admitted on September 20, 1887, and on January 1, 1888, chloroform was administered, and the tendo-Achillis divided. It was subsequently treated by stretching, but the deformity recurred, and on November 7, 1890, the greater part of the astragalus was removed. She is now doing well.

DR. PHELPS congratulated him on the very excellent results which he had obtained, and remarked that they seemed to demonstrate the superiority of this method of treatment by the removal of the astragalus.

DR. GIBNEY also presented a case of club foot, remarking that he never felt sure of having thoroughly relieved the condition, until a condition of marked calcaneus had been secured, before the patient was discharged from the hospital.

DR. SHAFFER said that hyperextension *immediately* after the operation of tenotomy was not unattended by risk, for one case of severe equino-varus, which he had treated in this way, resulted in an elongated tendon.

DR. R. H. SAYRE said that he had called attention in a previous paper to the fact that it was not wise to put the foot in a position of complete extension, because it is likely to result in too long an attachment between the calf muscles and the foot. The best position was at right angles to the long axis of the tibia. Non-union was most commonly due to the bandages being applied so tightly that the space between the divided tendon is occluded. If this fault in dressing be avoided, there is always a sufficient bond of union, even though the space be three inches long, as it was in a case which he had already exhibited to the Section.

DR. PHELPS said he agreed thoroughly with Dr. Gibney, as to the advantages of immediate hyperextension. It was the subsequent use of traction machines which pulled out the tendons into thin bands. The space between the divided ends of the tendon is immaterial, so long as the operation be performed antiseptically, and the dressings are carefully applied. He had practised over-correction in 161 cases of open incision, and in not a single instance did the tendo-Achillis fail to unite.

A CASE OF NEUROMIMESIS.

DR. W. R. TOWNSEND presented such a case. A girl, fourteen years of age, having a good family history, fell on the 27th of last January, twisting the foot, and producing a slight excoriation on the ankle. She was taken to a hospital, where the injury was treated by plaster of Paris for five weeks. On removing the plaster, the foot was found to be much distorted. She then came under the speaker's care, and an examination by Dr. B. Sachs indicated that the

deformity was entirely due to psychical causes. There is now a slight equinus, and the extreme contraction of the tibialis produces varus. Only slight force is required to bring the foot into the normal position, and the patient can retain it in this position by the power of the will for a few moments. There had been but little improvement so far in the case, which had been treated only by the application of blisters to the lower end of the spine, and by the administration of tonics.

In answer to a question from Dr. Ridlon, Dr. Townsend said that the genitals had not been examined.

DR. RIDLON said that he asked this question because in a recent case a vulvitis had seemed to be the cause of the trouble.

DR. SHAFFER said that some time ago he had presented a somewhat similar deformity of the foot, but in his case there was a rhythmical action of the muscles of the thigh.

DR. H. L. TAYLOR thought the diagnosis was unquestionably correct. Some years ago he had had a very similar case, which began with a slight sprain, and which was completely cured in about one month.

DR. R. H. SAYRE called attention to the remarkable resemblance which this purely muscular deformity bore to that seen in cases which are considered to be incurable except by the removal of considerable portions of bone. In this case the bony prominences are marked, and yet the bones are not luxated.

DR. H. W. BERG spoke of the possible medico-legal interest that might attach to such cases.

DR. CHARLES N. JONES, of Brooklyn, presented a child upon whom he had operated for infantile hernia. When the child was about three months old, a swelling appeared in his left groin, and gradually extended downward, until it finally reached the scrotum. The mother noticed that the swelling increased along the course of the inguinal canal when the child made any violent effort which brought into play the diaphragm or abdominal muscles. Some weeks later the child was fitted with a truss, but the instrument did not prevent the reappearance of the swelling in the scrotum. In this case, as persistent efforts during the past year had failed to retain the hernia in situ, it was decided to close the canal by operative measures. The operation was done on December 20, 1890. After a thorough cleansing of the field of operation, the patient was anæsthetized, the bowel reduced within the abdomen, and an incision made sufficiently large to expose the external abdominal ring. After the preliminary incision, the operator had found, contrary to his expectation, that the sac was distinct from the tunica vaginalis. It was carefully separated from the testicle and cord, and then opened transversely about an inch above the distal extremity. After a careful exploration, to see that there were no adhesions, the sac was ligatured with catgut, and removed. The pillars of the ring were then brought together with catgut sutures, leaving sufficient space for the passage of the cord. The wound was packed with iodoform gauze, and treated by the open method. Convalescence was afebrile. The child, who was three years of age, was presented to the Section. The wound was firmly closed, and there was no tendency to a recurrence of the hernia. A tight phimosis was operated upon at the same time as the hernia.

Dr. Jones also presented a boy, six years of age, who was admitted to the Children's Hospital on September 10, 1890. He had a rachitic history, and all the bones presented rachitic deformity. The teeth

were deficient, and the femora presented anterior and lateral curvatures, with great depression of the internal condyles. Below the knee, in both legs, there was a marked anterior and inward angular deformity of both bones of the leg.

On October 21, 1890, he performed supra-condyloid osteotomy of both femora. The wounds were dressed antiseptically, put up in plaster splints, and suspended by weights and pulleys, as recommended in an article published in the *Annals of Surgery*, April, 1889. On November 15, he performed cuneiform osteotomy on the tibiae, and fibulae of both legs for the correction of the principal deformity. The wounds were dressed according to the method recommended by Von Bergmann, viz.: they were thoroughly packed with iodoform gauze, dressed antiseptically, and left until the following day, until all hemorrhage had ceased, when the bones were united with catgut sutures, the periosteum and the skin wounds sutured, and the limb enveloped in a mass of sublimate gauze. Plaster bandages and suspension were then applied as before. Recovery was uninterrupted. On January 9, an additional section of the bones of both legs was made to correct a slight remaining deformity, and the same after-treatment was adopted. The patient presented a very tight and adherent prepuce, which was a constant source of irritation to him. At the first operation he was circumcised. This apparently slight operation the speaker considered important, as he had found it necessary to perform it in the case of every deformity in a male child which had come under his observation.

THE PLACE OF FIXATION IN THE TRACTION TREATMENT OF HIP DISEASE.

This was the title of a paper by DR. ROBERT W. LOVETT, of Boston, who illustrated his remarks by the exhibition of apparatus. He said that it was a question for those who believe in the traction treatment of hip disease to consider whether apparatus should have as its object, simply traction, or fixation of the joint as well. This question presents itself under two aspects:

(a) As to the advisability of using in certain cases a splint which should give better fixation than the long traction splint, and

(b) The indications for fixation in bed, and the class of cases in which it is necessary.

The long traction splint was introduced under the impression that it was an appliance which should give motion without friction. Later, traction in itself came to be regarded as a means of fixation, and Dr. Judson was the upholder of the view that traction furnished fixation to the hip joint. Some experiments by the writer tended to prove that the long traction splint was not a fixation appliance, and one worn by a boy with normal hip joints allowed motion of 35° in walking and sitting. The practical question arises whether such a splint furnished enough fixation, or whether in certain cases more perfect fixation of the joint is not to be desired. Certain cases do badly under treatment by the long traction splint, and these seem to be of two sorts; very severe cases, and cases where the patients are under imperfect control, and run and play continually, producing traumatism of the joint, which results in sensitiveness, irritability, and malposition.

In the hope of preventing this condition in such cases a splint was shown which was practically a combination of the Taylor and Thomas splint. The appliance fixes the thorax, the pelvis, and the leg, and comes below the foot, ending in a traction ap-

pliance, in this way fixing the hip joints as perfectly as possible, and at the same time making traction upon the diseased limb. The writer would advocate the use of such a splint chiefly in hospital practice, in very severe cases, and in patients under imperfect parental control. Practical experience has shown the splint to be useful in this class of cases.

(a) With regard to the second division of the subject—fixation in bed—the experience of the Boston Children's Hospital has been, that the immediate treatment of malposition or joint sensitiveness results in a very small proportion of abscesses among the cases treated. Of one hundred and eighty-two cases admitted in the last three years, one hundred and seven were sent to the wards on account of deformity and sensitiveness, and only fifty-two for abscess. In these years, the percentage of cases admitted for deformity and sensitiveness has steadily increased, while the percentage admitted for abscesses has steadily diminished. In the last six years at the Children's Hospital, among five hundred and seventy-four new cases of hip disease coming in that time, only one hundred and seven abscesses have developed, giving a percentage of 18.7 per cent., which is very much less than any other series of cases reported. Of Dr. Gibney's cases, 60 per cent. had abscess; in the Clinical Society's cases, 69 per cent.; and in the recent cases of Mr. Marsh, 50 per cent. It has seemed that the early admission of cases was to be regarded as the preventive treatment of abscess. It would seem, therefore, that the use of splint affording more fixation than the ordinary traction splint was needed in severe and sensitive cases, and that rest in bed was advisable when malposition occurs, not only in order to overcome the malposition, but in the hope of preventing abscess.

DISCUSSION.

DR. RIDLON approved of the author's observations upon the traction splint, but the outline of the splint which he had exhibited was certainly improper. During the last few years he had not found occasion to employ more traction than was obtained by the tendency of the Thomas splint to work downward. If the splint was not supported by shoulder-straps, it gave sufficient traction for the successful treatment of fractures of the upper part of the thigh bone. He questioned very much the advisability of allowing the patient to walk around, who had sufficient muscular spasm to indicate the necessity for the application of a special traction apparatus.

DR. SHAFFER thought that the author's experiments to determine the amount of motion occurring at the joint were fallacious, as they did not take into account the considerable arc of motion produced by the flexibility of the lumbar spine. He thought that his own experiments upon this point had not yet been contradicted. In these he applied the apparatus to a healthy hip joint on a person whose opposite joint was ankylosed. A person with an ankylosed hip can walk, or even dance, owing to the flexibility of the neighboring parts.

DR. JUDSON thought that the traction splint secured fixation but not immobilization. He thought it was important to make this distinction. Immobilization is found in union after fracture and in ankylosis, while fixation is produced by reflex muscular action and by traction. It is almost impossible to immobilize a joint by any application of mechanical surgery. Fixation implies a degree of mobility which allows a reduction of the deformity. When applied in a painful case it has a wonderful effect in relieving the

patient's distress, which is partly pain and partly a sleep-destroying apprehension of disturbance of the joint.

DR. PHELPS said that as he believed that it was a cardinal principle in the treatment of all joint disease that the affected part should be immobilized, he could not understand what the author meant by "motion within certain limits;" he saw no reason for the joint being moved at all. During the period of pain we all agreed that rest in bed was the proper thing, and yet, if this represented the best method of treatment, why employ a splint which would not carry out this idea? More than 75 per cent. recovered without deformity. Again, if extension were the proper thing, why not counteract the action of the coductors and adductors which cause the spasm, by making use of lateral traction? He did not think the statistics about abscess collected by the author carried much weight, because in Boston these cases were sent to institutions at an earlier stage of the disease than they were here.

The Chairman referred to an article by Dr. Judson, in which it was shown quite conclusively that the effect of mechanical treatment when applied sufficiently early, was to prevent abscess, and that it even prevented the opening of many abscesses which had already formed at the time the treatment was begun. Long before the Thomas splint, or the lateral traction splint, were known here, Drs. Sayre and Davis obtained cures without deformity, by means of the traction apparatus commonly employed, and he would not, therefore, accept the view that almost all the cases treated by this much abused traction splint, pursued an unfavorable course, and ended in deformity.

DR. BERG spoke in favor of the use of apparatus which did not require any elaborate fitting; for, as he said, "some braces require so much fitting that they rarely fit."

DR. H. L. TAYLOR said that he was glad to be able to approve nearly all the points made by the author in his excellent paper. The hip joint required some form of fixation, as well as extension, when acutely inflamed. In most cases the amount of fixation afforded by the long counter-extension splint combined with short periods of rest in bed, when necessary, was sufficient. Dr. C. Fayette Taylor had never claimed that his long splint gave positive immobilization of the hip; but the speaker was surprised at the range of motion found under its use by Dr. Lovett, and would wait for further experiment before admitting that the question of the amount of motion allowed was settled. In very bad or unruly cases in dispensary practice, the apparatus shown by Dr. Lovett would no doubt prove useful. The speaker would emphasize the advantage of properly applied counter-extension in the progressive stage of hip joint disease, in order to restore the hygiene of the joint and prevent deformity.

DR. LOVETT said that he had used one perineal pas instead of two, because his object had been to find the fixative power of traction, and not of any special splint, and he thought his experiments, as far as they had gone, were in the proper direction. With regard to the question of abscess, he should have added, that 170 cases of abscess mentioned, included those occurring in cases which had been admitted for a number of years past, at least since 1880.

DR. T. HALSTEAD MYERS presented a specimen showing an upper dorsal kyphosis, with the cord in situ. The patient had muscular weakness of the legs, and exaggerated knee-jerks only. The specimen showed that the pressure was made by the body of one vertebra, and that if a laminectomy were done,

the arches of at least four vertebra would have to be removed. It also showed that the pressure was entirely anterior, and that, therefore, as there was considerable room posteriorly, the operation would not benefit this patient. He thought a sharp bend in the cord, even without direct external pressure, might cause vascular changes from the increased pressure on the concave side, sufficient to cause symptoms.

DR. SAMUEL LLOYD said that in many of the cases which had been operated upon sufficient bone had not been removed, and that this had been the difficulty with two of Kraska's cases. As a matter of fact, it had been found that the removal of the posterior portion of the spinal column, the laminay, *did* relieve the pressure on the cord.

The Polyclinic.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

DR. BRINTON exhibited a case of traumatic hydrocele with nature's own cure of that condition. The hydrocele had been tapped, but, returning, and becoming purulent, had formed an opening for itself. After the discharge, the walls of the sac had become adherent and so effected a cure.

The internal opening of a fistula in ano is not often found high up in the rectum, but just within the external sphincter. There may be pockets which extend high up, but the internal opening is generally just under your finger as you insert it into the rectum.—*Brinton*.

PHILADELPHIA HOSPITAL.

IN operations on the intestines, where you wish to know which is the proximal and which is the distal end, place a pinch of salt on the intestine and, in the majority of cases, there will be peristaltic motion, which will be from the rectum upward.—*Ashton*.

The shoulder joint is one of the least frequently involved in rheumatic inflammations.—*Walker*.

Right sided extension of the area of heart dullness generally means right sided trouble or engorgement.—*Walker*.

A thrill is seldom felt at the apex (on palpation) without mitral disease, a disease which modifies the passage of the blood from auricle to ventricle.—*Walker*.

The murmur of endocarditis is at first simply a subduing of the normal sounds; as it passes on there may develop a decided murmur, but at first there is only the softening of the normal sounds; therefore, when you are treating a case of rheumatism, be careful to recognize the nature of the sound at the first, so as to be able to detect any changes which may take place day by day, for there is not enough pain associated with endocarditis to call the patient's attention to it in the presence of the joint trouble, therefore the slightest indication we can get by physical examination is of service, not having pain to assist us. A mitral regurgitation is generally the first effect of endocarditis. What is to be done in such cases? As far as the acute attack is concerned, nothing. Life is not immediately threatened by the presence of this inflammation, but of course, there is always a possibility of an embolus from these inflamed surfaces. I have seen strings of fibrin extending from the mitral

leaflets long enough to sweep into the aortic orifice. Of course it would be easy for these to become detached. As a rule, however, the deposits are not so much on the surface of the valves as in the tissues. The danger, therefore, is not of embolism, but of contractions. The difficulty in treatment consists in putting the parts at absolute rest. We must insist on the horizontal position, so as to give the parts, as nearly as possible, complete rest.—*Walker*.

PRACTICAL HINTS.—Now that the summer is approaching, and in feeling seems actually upon us, it behooves all to see that their systemic condition is in perfect trim, in order that they may be less susceptible to the complaints which are likely to occur at this season. Especially does the above apply to the physician whose work is a song of daily and nightly toil. "Spring fever," though often synonymous with laziness, is frequently more than an "idle fancy." The warm weather brings a laxness of feeling which is participated in by all the various organs of the body. Cold weather demanded an increased supply of food and muscular exertion that the bodily temperature and conditions so necessary for its well being might be maintained. As the season advances this demand grows less and bodily exertion reaches its minimum. The system becomes torpid, as it were. The various organs of the body not being called upon for the same amount of work, grow languid, and so the various secretions and excretions are not up to their normal standard. The various bodily functions must be attended to. The liver, with its many imperfect functions, is especially liable to take on this condition of inactivity. Its biliary function is frequently deranged. The skin looks sallow, the tongue coated, a feeling in the morning as if one's night's rest had not been refreshing. All these, with other feelings of lassitude, tell us that we are not in "working trim." To these must be added the susceptibility to colds. If there is any one thing that is harrassing, it is a "summer cold." One cannot be too careful about changing their flannels. Do it gradually, or wait until you know the season has fully settled. Keep the bowels open, if only with a glassful of cold water in the morning before breakfast. Small doses of calomel will prove exceedingly efficacious, both as a tonic and laxative. Cool bathing daily promotes the functions of our nervous system and adds a stimulus to the proper activity of our various bodily organs. Take a sponge bath every morning. Don't over eat, but sustain the body with nutritious diet. Fruit is always beneficial. Finally, let the physician see that he is well protected from the chilling air of night, when his peaceful slumbers are disturbed by some nocturnal visitor.—*Southern Med. Record*.

SUBLIMATE AND STAPHYLOCOCCUS AUREUS.—As the result of a long series of experiments, detailed in the *Johns Hopkins Hospital Bulletin*, Abbott draws the following conclusions:

1. Under the most favorable conditions a given amount of sublimate has the property of rendering inert only a certain number of individual organisms. That is to say, the process is a definite chemical one, taking place between the protoplasm of the individual bacteria, and the sublimate in the solution.

2. The disinfecting activity of the sublimate against organisms is profoundly influenced by the proportion of albuminous material contained in the medium in which the bacteria are present.

3. The relation between the golden pyogenic staphylococci and sublimate is not a constant one, organisms from different sources and of different ages behaving differently when exposed to the same amount of the disinfectant, for the same length of time.

4. The organisms which survive the exposure to the sublimate, may experience a temporary attenuation. This attenuation, however, may be caused to disappear by successive cultivation in normal media.

5. By the method employed in these experiments it is possible to select from a culture the most resistant forms in that culture.

6. Many of the results of previous experimenters, who have assigned to corrosive sublimate more powerful disinfectant properties against the staphylococcus pyogenes aureus in cultures than the observations reported in this paper indicate, are attributable to the neglect of certain precautions now recognized as essential to the proper conduct of such experiments.

In the light of these experiments and those of the experimenters quoted in this paper, it is plain that for use in surgical practice the solutions of corrosive sublimate do not possess all of the advantages hitherto attributed to them.

To the employment of sublimate solutions upon wound-surfaces it is plain that there exist at least two serious objections.

1. The albumen of the tissues and fluids of the body tends to diminish the strength of, or indeed renders entirely inert, the solution employed.

2. The integrity of the tissues is materially injured by the application of solutions of this salt.

The first objection cannot be met with certainty, for the surgeon possesses no means by which he can determine the amount of albuminous material with which his solutions are to come in contact, and in any case this large amount of albuminous material is an almost insuperable obstacle to complete disinfection with sublimate. He is, therefore, never in a position to say, *a priori*, that his efforts at disinfection of the wound are or are not successful.

The second objection is equally serious. During the past two years we have had sufficient evidence to lead us to believe that the normal tissues and fluids of the body possess the power of rendering inert many kinds of organisms which may have gained access to them. This function is therefore diminished, or, indeed, may be quite destroyed, by any agent which brings about alterations in the constitution of these tissues. We know that just such changes as those to which we refer are known to follow the application of sublimate solutions. It is plain then if we bring about in these tissues a condition of superficial necrosis, the condition following upon the application of sublimate, they are much less able to resist the inroads of infectious organisms than they would have been had they been left in their natural condition.

As a disinfectant, in the strict sense of the word, there are, perhaps, few substances which possess the property in a higher degree than does corrosive sublimate, but at the same time there is nothing which is employed for this purpose that requires greater care in its manipulation in order to obtain its best results than does this salt. As we have seen, its action is influenced by a number of conditions which in practical application it is difficult, if not quite impossible, to control.

For these reasons we seem hardly justified in continuing to give to it the first place in the list of substances which may be employed practically for the purpose of rendering harmless, materials containing the germs of infectious maladies.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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New York and Philadelphia, May 23, 1891.

IN the *Virginia Medical Monthly* for May is to be found the report of the Virginia State Board of Examiners, in detail, giving the questions asked, and showing in what branches each rejected candidate was deficient. Out of 30 rejected candidates, 29 failed in chemistry, 30 in anatomy, 12 in hygiene and medical jurisprudence, 12 in physiology, 8 in materia medica, 19 in obstetrics, 14 in practice, and 25 in surgery.

Of the 30 who failed, 5 were non graduates, 22 graduated at colleges requiring but two courses, while 3 came from schools that give the three year graded course. Two of these were from the Hospital College of Medicine, of Louisville, Kentucky. One of these failed in anatomy, chemistry, hygiene, obstetrics and surgery; the other failed in chemistry, anatomy, hygiene and surgery; the total marks being 63 and 64, respectively. The third came from the Howard University for Colored Students in Washington, D. C. He failed in chemistry, anatomy, physiology, obstetrics and surgery, taking a grade of 59.

Of the 47 successful candidates, 4 gave no college, 36 were from two-year schools, 5 from the University of Virginia, and 2 from Leonard Medical School for Colored Students, at Raleigh, North Carolina. These two schools, and Tulane University, New Orleans (a two-year school that was represented by one candidate), were the only ones that succeeded with all the candidates they presented.

The Leonard school was organized in 1882; has a four years' graded course, with 7 instructors; no beds for clinical instruction; no laboratory courses; does not teach hygiene at all; requires four years' study; four regular courses; two dissection courses; no hospital or clinical work. With such disadvantages it certainly speaks well for the colored students that both the representatives of this school should have succeeded in passing the Virginia examinations.

The University of Virginia is located at Charlottesville, a town of less than 3,000 inhabitants, with no

larger town within two hundred miles. The meager replies sent to our circular requesting information, tell us that the term occupies thirty-six weeks. The course is graded, but covers only two years; no hospital beds; no laboratory courses; no hygiene taught; no practical examinations, hospital, or clinical work required. There are seven instructors. Students who are not taught hygiene must be pretty thoroughly versed in the principles of medical science to pass a successful examination on this branch.

What are we to conclude from this? That the proper way to obtain the best medical education is to go to a little country village where there are no distracting clinics; no laboratory work; no hospitals; nothing but text books, and recitations extending over nine months of the year. The merits of the University of Virginia system are vindicated by the results of the Virginia examinations for seven years, during which, of fifty-three candidates from this school, but one has failed. This record is corroborated by the unequalled success of this college's candidates in the examinations of the United States Navy Board. So far as the passing of examinations goes, the superiority of this method of instruction has been amply demonstrated; but there is a good deal of truth in a remark made by one of our best practical teachers, that the getting a medical education is not so much for the purpose of passing examinations as of preparing for the duties of a practitioner. And the University of Virginia cannot point to anything approaching the long roll of great teachers and practitioners that Jefferson College has started on their career. With less of that scientific culture that comes from much reading of books, and far more of that priceless knowledge that is gotten from observation in the clinical amphitheater, Jefferson's graduates have everywhere come to the front as exemplifying the practical nature of her teaching, that has been its characteristic from the first.

The difficulty in uniting the two methods of instruction has always lain in an unwillingness to lengthen the course. Men may be taught by recitations here in the great city just as well as in the backwoods. If to this be added the advantages of our laboratories and clinics, there is no reason why our students should not show superiority over those educated at the University of Virginia.

On the other hand, it would be well if the medical colleges of the cities were to extend the time that the student is required to attend college to ten months, grade the course thoroughly and substitute recitations for the antiquated didactic lecture. This would allow the student time to study a text-book, time for exercise, for laboratory work and for discussion with his classmates and instructors. It would do away with the appalling "final" examination, by substituting one at the end of each term of three or four months. It would, also, relegate to an unregretted past that miserable refuge of the idle, the quiz compend.

This is so obvious a matter that we must ask our readers' pardon for advertizing to it at such length. But medical education is a matter of vital importance to the profession; and those active members who de-

wise bills establishing medical boards, etc., etc., are so apt to act without due consideration, that it is essential to put these matters straight before their eyes.

We would suggest to the Virginia Examining Board the advisability of adding to their examinations something besides the mere answering of questions. In the Navy examinations the candidate is required to put on fracture dressings, diagnose cases, etc.; and this method, as compelling attention to the clinical demonstrations and practice in physical examination, should form a part of every college's final examination.

Annotations.

CLEVENGER'S Brain Cap is the short name for a very simple appliance for locating motor centers in the cerebrum before trephining the skull. It was invented by Dr. S. V. Clevenger, and described by him this month at the Chicago Academy of Medicine, as a thin transparent rubber cap, smaller than the average adult cranium, so as to require stretching when fitted to the head. The fissures and motor centers were delineated upon the surface of the cap, and no matter whether the head were long or short, broad or narrow, high or low, the pointed lines would fall into their approximate places. Of course, the same means of determining the relative fissure locations were used as with other apparatus, but Clevenger's method is the simplest, and trial may prove it to be the most accurate. Some of the doctor's essays in this direction are in the *Journal of Nervous and Mental Diseases* of eleven and twelve years ago.

THE NEUROTIC COMPLICATIONS OF UTERINE DISEASE.

THE *Lancet* (April 25), publishes an abstract of Playfair's address before the Medico-Chirurgical Society upon this topic. In it he says one of the most important things to be impressed upon the mind is the danger in the treatment of the less important of the so-called diseases of women—such as do not admit of any operative interference—of developing a neurosis. A most important factor of uterine disease is that there is in almost all women a strong nervous tendency that should be guarded against in any local treatment that we may adopt in order to avoid encouraging or fostering it. A case cited is that of a young married woman who had been in the hands of several practitioners for local symptoms, she was told she had retroflexion, and the diagnosis was accurate.

A pessary had been inserted of suitable shape, and well adapted for relieving other cases, but in this case it failed.

The patient was confined to a sofa, and was afraid to move across the room, she could think of nothing but the mysterious instrument within her; its removal, and the assurance that she had better do nothing but use hot irrigations, had the happiest effect. In a few days she was bright and cheerful, and will probably do well without any local treatment.

We, however, should be careful not to allow one or two exceptional cases of this kind to lead us to an opposite error, and generally condemn (as some have done), the use of pessaries and other such measures altogether.

Take the common case of a woman after confinement with a heavy subinvolved uterus, possibly retroflexed and with some endometritis, which would naturally cause a painful bearing-down sensation, this has generally been called "neurasthenia," for the want of a better name. The important thing, however, is to recognize the fact that there is a common morbid state insufficiently described in medical works, which is not only a source of illness and misery, but when thoroughly understood is readily cured.

To Dr. Weir Mitchell, of Philadelphia, belongs the merit of systematizing a method of dealing with such cases, so that they are no longer a reproach to medicine, but as readily cured as anything can be, provided the cases are carefully selected and the treatment properly carried out.

SCHUYLKILL WATER.

THE question of the purity of our city's water is always of paramount importance, and numerous indeed have been the schemes having for their object an abundant supply of water free from disease germs and deleterious material. A paper read before the American Philosophical Society (April 17) by R. Meade Bache, on the "Possible Sterilization of City Water," can lay claim at least to the merit of novelty. After discussing the action of the digestive fluids upon pathogenic germs, he praises the well known Anderson iron process for the purification of water, and then goes on to state a few experiments he made, which led him to consider electricity as a means of sterilization. He quotes the experiments made by Dr. A. B. Griffiths, of Edinburgh, who concluded that the bacillus tuberculosis was killed by 2.16 volts, the bacterium lactis by 2.26 volts, the bacterium aceti by 3.24 volts, at temperature of 16 C. the current being allowed to pass ten minutes. The author of the paper then reasons that if certain schizomycetes can be killed by such a small current acting for a relatively long period, why cannot they be killed by a much stronger current acting but momentarily? He then proposes that these results be applied to the question of the sterilization of water, suggesting the following plan: The water issuing from, as well as entering, the reservoir should be subjected to a powerful current of electricity by means of a contrivance consisting of a section of the same diameter as that of the pipe, insulating the poles from each other, and both from the general line of the pipe. The pipe itself being interrupted by a non-conducting section of a length to be determined on by the diameter of the pipe. This is certainly a method which has not yet been tried, and should it prove worthy of the confidence placed in it by its author, whose reasoning may seem a trifle fanciful, it might perhaps give us that essential of health, pure water.

ARBUTHNOT LANE, in the *Lancet*, describes a case of very severe pain in anterior extremity of urethra. No cause whatever could be found for it. No treatment seemed to have any effect. As a last resort the bladder was opened for exploration. On attempting to introduce the little finger into the prostate portion of the urethra, the greatest resistance was felt, and it was only after using much force that it was possible to dilate up this portion of the urethra. This dilatation seemed to completely cure the pain. In time, however, the pain returned, but much less severe than before. Forceful dilatation of the prostatic urethra relieved this pain, though it did not remove it.

Letters to the Editor.

MUTTER MUSEUM OF THE COLLEGE OF PHYSICIANS.

IN order to increase the usefulness of the Museum, and to add to its already remarkable collections, it is requested that the Fellows of the College and friends of the Museum in the profession generally, and public at large, will make it the repository of specimens which they possess, and which have anatomical or physiological interest.

All preparations or specimens of normal or pathological anatomy, models, illustrations, microscopic specimens, surgical apparatus, and materia medica and all antiquated or modern instruments will be gladly received. Every article donated will be plainly marked with the name of the donor.

GUY HINSDALE, *Curator*.

PHILADELPHIA, PA., May 1, 1891.

JACKET FOR CHEST AFFECTIONS.

AN efficient and valuable addition to the treatment of chest affection in children is a suitable jacket. It is especially useful in treating the acute and catarrhal pneumonias in infants. The little article can be conveniently made by taking a piece of lint about 12x12, according to the size of the child, and folding it upon itself so as to make a strip about 12x6, leaving the smooth side outward. This is again doubled, making a square. In the side of the double fold of the goods, about three inches from the bottom, hollow out an arms-eye (or half circle) of about three inches. Then slope a shoulder seam of one inch. Cut out the neck in a curve to suit the throat. Then slope a corresponding shoulder seam of one inch on the open side. Close the shoulder seam on the doubled side by overseaming together. The open side and the open shoulder seam is closed by means of short tapes sewn on the outside. It will fit more smoothly if the two thicknesses of lint are quilted together. This jacket can be put on without lifting the child, by simply putting the arm through the hole and fastening the tapes together on the opposite side. The jacket can also be varied according to individual preference, either by substituting a layer of cotton for the inside layer of lint, or, as some prefer, placing a piece of oiled silk between the two thicknesses of lint. The advantage of this jacket is that it is warm, cleanly and can be easily changed, if necessary, without disturbing the child. It also forms an excellent dressing for a fracture of the humerus or clavicle in very young children.

S. TRANER BUCK, M.D.

PHILADELPHIA, PA.

LOW TEMPERATURES.

DR. N. P. BEAUCHAMP in the *Medical World*, for September, 1890, page 344, was struck when he found the temperature of one of his patients to be 95.5°. Of course such a low temperature of a body is not often met with. But when I recollect a case of the temperature of a patient, I can hardly believe it myself.

In a sombre day of March in the year 1881, at eleven o'clock in the morning, there appeared in the Jewish Hospital, in the city of Odessa, a patient thirty-five to forty years old, who applied for admittance; he complained of absence of appetite and general weakness. His pale face was rather sleepy and thoughtful; his voice very weak. Before the arrival

of the head physician the assistant physician took the temperature of that patient. When he took out the thermometer from under the axilla of the patient, he put it back again, thinking that perhaps he wrongly applied it the first time, as it showed only 32° C. When again he looked at the thermometer he found the temperature the same; this was rather astonishing, and suspiciously looking at the thermometer, he asked another assistant to try his temperature. But the very correct instrument of that physician showed only 32.2° C. I regret to say that I cannot recollect the diagnosis of that patient. Is it not even a more striking case?

Speaking about the temperature of the human body, I wish to state here a few observations of certain European scientists. The line of the oscillations of the bodily temperature observed in the human body does not exceed 8° C. says Wunderlich; the highest temperature which he observed was in a patient who suffered with tetanus, in the moment of death. It was 44.75° C. Alvarenga thinks 42° C. to be in rare cases; very rarely has he found 43° C., but 44° C. has never happened in his observations. The lowest temperature observed by Chardy, in a case of sclerema, was 22° C. Minieu, in the same disease, 23°. In most cases, says Wunderlich, the temperature in the axillary region, when properly protected, shows higher than 35°, rarely does it fall to 33° or 32° C. If in some diseases, in cholera for instance, the temperature on the surface of the body is 26° C, and even lower, yet according to other observations in the same disease it may be admitted that the temperature in the rectum and in the vagina was higher.

A long series of diseased conditions, as constipation, ischuria, amenorrhœa, often cause higher temperature; on the contrary, diarrhœa produced by purgatives, all kinds of losses of natural juices, severe vomiting produced by emetics, the influence of alcohol, some narcotics, and other more or less poisonous drugs, serve to lower the temperature of the body in a greater or lesser degree.

As to drugs it is proved that some of them diminish the temperature of patients suffering with fever, if, till their administration, the temperature was higher, namely: digitalis, veratrum, chininum, calomel, etc.

In children, nervous, hysterical women the temperature in diseases manifests great changes; not only slight impressions produce a strong increase, and more notable daily fluctuations of temperature than in adults and in men, but all other influences as well are productive of acute changes of temperature of the body. There is often increase of temperature during menstruation, in post-partum state, during dentition, in bodily or mental fatigue, and mental fatigue and mental depression.

After death appear different, sometimes very interesting, changes of temperature. In most cases it falls after death the more quickly, the lower the temperature of the body was at the moment of death. Alvarenga states in his book the changes of temperature after death in a case of a patient of fifty eight, who was admitted to his clinic when suffering with apoplexy, from which he died fourteen hours after. An hour before the death the temperature was 36.5° C. The thermometer, which always remains under the axilla, showed at 8.15 o'clock (a quarter of an hour after death) 35.6°, and afterwards every quarter of an hour following changes of temperature were observed until half past one P. M., when the mercury stopped at 15°.

35.6°, at 8.15 o'clock; 35.4°, 8.30 o'clock; 35°, 8.45 o'clock; 34.6°, 9 o'clock; 34°, 9.15 o'clock;

33.4°, 9.30 o'clock; 32.8°, 9.45 o'clock; 32.2°, 10 o'clock; 31.6°, 10.15 o'clock; 31°, 10.30 o'clock; 30.6°, 10.45 o'clock; 30°, 11 o'clock; 29.6°, 11.15 o'clock; 29°, 11.30 o'clock; 28.4°, 11.45 o'clock; 27°, 12 o'clock; 25.6°, 12.15 o'clock; 23.8°, 12.30 o'clock; 20.6°, 12.45 o'clock; 18°, 1 o'clock; 15.8°, 1.15 o'clock; 15°, 1.30 o'clock P. M.

Sometimes after death the temperature increases in a greater or lesser degree, even to such an extent that it exceeds the highest temperature observed during life. Jaccoud (*Traité de la pathologie interne*, Tom. I, Paris, 1869) observed that in a slight increase of temperature after death (a few tenths of a degree) this increase takes place during an hour or little more, then it stops, and at last it begins to fall, at first slowly, with a gradual increase. If, however, the increase of temperature after death is great, and is actually higher than the normal temperature of a living person, then the falling of the temperature is slow, as is observed in cases of tetanus, of cholera, and generally in all cases of wasting fevers where the temperature increases until the last moment of life.

S. SEILIKOVITCH.

338 SPRUCE STREET, PHILADELPHIA.

Book Notices.

ELECTRICITY: ITS APPLICATION TO MEDICINE. By WEL LINGTON ADAMS, M.D. 2 vols; pp. 219. Detroit: Geo. S. Davis. 1891.

With the exception of a very few sentences this book is devoted to the elucidation of electro-physics and electro mechanics. It covers the ground fully, and is a guide to these problems which the physician may accept with confidence. Many points not generally comprehended by the general practitioner are herein set forth in clear and understandable style, and, if the book on electro-therapeutics which is promised by the author is as correct as the present, the combined volumes will form a compend at once desirable and needed. But one criticism occurs to us in the get-up of the books, which is, that it is a pity to put into paper binding what is quite worthy of strong and durable covers.

W. R. D. B.

A NATURAL PHILOSOPHY. The principles of science in everyday life. By G. P. QUACKENBOSCH, LL.D. Pp. 455; 8vo; cloth. New York, Cincinnati, Chicago: American Book Company. 1891.

This production of the well-known author is up to date in all the new discoveries in general science, and the text is so clearly written as to make the volume an admirable one for scholars even not advanced beyond the grammar school. The chapters on electricity and magnetism are admirably written, and they will be of great value to the reader. Astronomy, also, is fully taken up. The mechanical work of the printer and binder is excellent, and the numerous illustrations are very fine.

W. R. D. B.

MATERIA MEDICA AND THERAPEUTICS. With special reference to the clinical application of drugs. By JOHN V. SHOEMAKER, A.M., M.D. Vol. II. Being an independent treatise upon drugs. Philadelphia and London: F. A. Davis, Publisher. 1891. Cloth; pp. 650; royal octavo. Price, \$3.50.

The topics are arranged alphabetically, like the Dispensatory, thus facilitating reference, and avoiding repetition, while the requirements of the student

are met by inserting in the index. Garrod's classification, probably the best selection that could be made, There are some signs of hurry near the close of the volume, where the topics do not receive as full treatment as in the first pages. The work would be further improved by the addition of an index of diseases, such as Waring has employed to supplement his book on therapeutics. These are the faults. On the other hand, Dr. Shoemaker has given us a book filled with practical information, well-expressed, carefully collated, with excellent discrimination, and showing throughout the signs of a cyclopedic knowledge of therapeutic agents and the hand of a master in their application. It is the work of a clinician rather than a laboratory investigator. We recommend it to any of our readers who desire a thoroughly practical modern work on therapeutics.

A TEXT-BOOK OF BACTERIOLOGY. By CARL FRAENKEL, M.D., Professor of Hygiene, University of Königsberg. Third edition, translated and edited by J. H. LINSLEY, M.D., Professor of Pathology and Bacteriology, Medical Department of the University of Vermont; Demonstrator of Pathology and Bacteriology, New York Post-Graduate Medical School and Hospital, etc., etc. Octavo, 380 pages. Extra muslin, \$3.75. New York: William Wood & Company.

The thanks of the profession are due Dr. Linsley for presenting us the translation of Fraenkel's most excellent text-book. It deserves, and will receive, a hearty welcome.

PHARMACOLOGY OF THE NEWER MATERIA MEDICA, Part XI, February and March, 1891, contains observations on jequirity, Judas tree, kamala, kooso, kava, rava, kola nut, lamium album and lily of the valley, together with a brief resumé of properties, active principles, dose, etc.

The Medical Digest.

CHLORAL VS. IODINE FOR INJECTING CAVITIES.—M. Marc See states that he has found a 10 per cent. solution of chloral hydrate to act equally as well as tincture of iodine as a coagulant for injecting hydroceles and other cavities, and to be devoid of the intense irritation and pain frequently caused by the latter. In hydroceles M. See injects about 30 gm. at once into the sac, repeating the operation two or three days later. He also uses the chloral solution as an injection in treating varicose veins, the introduction being made in the neighborhood of the varices.

LARYNGITIS IN VOCALISTS—TREATMENT.—First give a laxative. Then use a spray of a 1 per cent. solution of cocaine, accompanied by aconite and aromatic spirit of ammonia internally, and the use of a lozenge several times daily of:

R.—Morphine bimeconat. gr. $1\frac{1}{10}$.
Cocaine hydro-chlor. gr. $1\frac{1}{2}$.
Tinct. aconiti m. $\frac{1}{2}$.
Rad. althe. gr. $\frac{1}{2}$.

M.—Make one troche.

If under this treatment the acute symptoms subside, strychnine will be prompt in restoring tone. In the morning of the day on which the patient is to sing, strychnine sulph., $\frac{1}{10}$ gr., should be taken at breakfast and at noon-day. In the evening, before

departing to the concert, $\frac{1}{20}$ or $\frac{1}{30}$ gr. should be taken. These doses are very effectual, and are for an adult only. The use of alcohol for the voice is ruinous to its tone.—Faulkner, in *Kansas City Med. Record*.

FÆTOR OF THE LOCHIAL DISCHARGES.—Robert Broxall, in the *Practitioner*, sums up as follows:

1. That septic infection may take place without fætor.
2. That fætor may occur without sepsis or fever.
3. That fætor is more frequent in cases where the tissues are bruised and torn, and, therefore, in primiparæ and in operation cases.
4. That fætor is generally (though not invariably) associated with fever, but in such cases the fever almost invariably precedes the fætor by a considerable interval.
5. That the presence or absence of fætor is a very uncertain guide to the presence or absence of sepsis.
6. That in any case, as fætor invariably indicates a failure to maintain local asepsis, vigorous antiseptic measures should be at once instituted.
7. That the vulva and vagina should be first cleansed, and only when this has been done and where real necessity exists, should the cleansing be extended to the interior of the uterus.

THE TREATMENT OF RHEUMATIC HYPERPYREXIA.—The occurrence of hyperpyrexia in acute rheumatism, though happily rare, is a complication of grave import, and demands active and immediate treatment.

We should rely solely on the employment of cold in reducing the excess of temperature, and not on drugs. Cases have shown that the earlier the treatment by cold, the more successful. The bath is best, the patient being lowered into it in a sheet, at a temperature of 90°–100° F., and then cooling by pieces of ice to 60°–70° F., and remaining in the bath until rectal temperature has fallen to 101°–102° F. The cold pack applied as usual may be preferable in conjunction with an ice bag along the whole length of the spine. The choice of method must depend on circumstances. While, however, recognizing the success that often follows the employment of cold in rheumatic pyrexia, we must remember that a number of deaths have been reported from shock in cases where the heart and tissues had already suffered too much from the excessive heat. In some cases also violent purgation has resulted. In treating acute rheumatism, should the temperature rise unduly, we should not waste valuable time by the administration of drugs, but endeavor to check it at once by the prompt application of cold.

—Herbert Male, in *The Practitioner*.

AN ALLEGED CURE FOR TYPHOID.—Another curious remedy has been paraded in the lay press of Melbourne for the cure of typhoid. The "discovery" is said to be due to the combined efforts of a surgeon and a bacteriologist. The former is credited with having demonstrated that chyle possesses remarkable antiseptic properties. He found that chyle effectually rendered odorless the foul smelling pus of a suppurating cavity. Bacteriological investigation then showed that chyle contains a bacillus, one of the yeast microorganisms known as "cerevisia," and that this same bacillus when placed in contact with "typhoid germs" cultivated apart from the human subject, acted very destructively upon the latter, also that the "cerevisia" could be taken into the human

body without any outward result. As the outcome of these revelations, steps were at once taken to inoculate typhoid patients with chyle, with, it is claimed by the author, complete success. The judgment of the staff of the Alfred Hospital is, that the remedy is negative. It is contended, however, that sufficient time has not yet elapsed for any conclusion to be drawn. There is, we admit, a "germ" of interest in the allegation that chyle possesses a microorganism at all. This is a subject to which bacteriologists in this country might well devote some attention, but whether the bacillus is likely to be of use in typhoid or other zymotic diseases is quite another matter.

—*Med. Press and Circular*.

PARENCHYMATOUS ASPIRATION.—This is a new method of diagnosis, consisting essentially in withdrawing, by means of a hypodermic syringe, certain products from pathological formations in solid tissues, and the examination of these products by the microscope. The following conclusions were formulated:

1. Parenchymatous aspiration is, when conducted with antiseptic precautions, in all new formations not necessitating visceral puncture, a harmless procedure.
2. When conducted with normal viscera, the method is rarely attended with danger owing to the elasticity of physiological tissues.
3. Hemorrhage may possibly follow the operation in disease of the viscera, owing to diminished tissue elasticity and pathological changes in the blood-vessels.
4. The necessity for a correct diagnosis justifies, in properly selected cases, the slight risks attending parenchymatous aspiration.
5. Parenchymatous aspiration is of value in the diagnosis of pulmonary tuberculosis with lung consolidation, in which the sputa fail to reveal the presence of the bacillus tuberculosis, as in obstruction of the bronchus leading to the consolidated area, or when the sputa are swallowed as occurs in children, or when the sputa are expectorated with difficulty as in senile subjects.
6. In pulmonary tuberculosis, when consolidation is present but no sputum, parenchymatous aspiration may furnish the earliest evidence of the disease.
7. Parenchymatous aspiration may be of value in the differential diagnosis of pulmonary consolidations when an examination of the sputum proves negative.
8. In surgical tuberculosis of the lymph glands, bones, joints, skin, testicles and other structures, parenchymatous aspiration is of undoubted importance.
9. It may be of value in the diagnosis of tumors, either superficial or deep seated.
10. In amyloid degeneration of the viscera, this method may furnish the only evidence of the affection.
11. In malaria, typhoid fever and other infectious diseases, puncture of the spleen may prove of inestimable value in diagnosis.
12. Leprous lesions of the external parts or viscera may be correctly diagnosed by the aid of parenchymatous aspiration.
13. The lesions of syphilis may be determined by means of this method.
14. Commensurate with our advanced knowledge in the domain of bacteriology, and the employment of methods for the more ready recognition of pathogenic microbes, parenchymatous aspiration as a diagnostic measure, will enhance in value.

—*Occidental Med. Times*.

THE *Lancet* describes four cases of tubercular meningitis in which paracentesis of the theca vertebralis was performed by Essex Winter for the relief of pressure. In some cases there was a temporary relief of symptoms, and each case showed ample reason for the fatal termination other than the operation.

DR. BROWN, in the *Provincial Medical Journal*, describes what he calls a catheter stricture. He states that "it is usually found just about the bulb, or about five inches down. The walls of the urethra appear to be inflamed, and in a state of spasmodic contraction; the mucous membrane has lost its polish and lubricity, and doubtless a certain amount of inflammatory deposit takes place around the affected part of the urethra." He has not yet verified this by a post-mortem examination.

IMMUNITY AGAINST INFLUENZA FURNISHED BY VACCINATION.—Dr. Goldschmidt, of the island of Madeira, investigated last year the effect of vaccination upon the liability to influenza. He found that no one of one hundred and twelve individuals upon whom revaccination had been successfully performed suffered from influenza, and of ninety-eight persons in whom the revaccination did not take, only fifteen had symptoms of the disease. He also quotes other cases, and attributes the immunity generally enjoyed by young children in epidemics of influenza to the influence of the first vaccination.—*Med. Record*.

WE are still unfamiliar with the mode of manufacture of Koch's lymph, but Hueppe has made a liquid resembling it in appearance and effects by the following method: He cultivates the bacillus tuberculosis for six weeks in the following liquid:

Glycerine.....	5 per cent.
Peptone.....	10 "
Chloride of sodium.....	0.5 "
Meat extract.....	0.1 "

This was concentrated by heat, and the resulting fluid was very similar to Koch's lymph.

—*Occidental Med. Times*.

MANNING, in the *British Medical Journal*, advises the following method of treatment in the ulcerated throats of scarlet fever and diphtheria:

A syringe holding 4 to 6 ounces is filled with this solution: Pulv. acidi boracis, 4 parts; glycerine, 3 parts. Heat, and mix thoroughly. A large tablespoonful of this is dissolved in a pint of water.

The nozzle of the syringe is directed well over the back of the tongue and forcibly emptied, receiving the water which rushes out of the mouth and nose in a small basin. This irrigation is done every two or three hours. He recommends this treatment from an experience of 1,500 cases.

TREATMENT OF SCARLET FEVER.—A treatment said to give striking results has been used in a number of cases. It is as follows: Internally the patient (a child of fourteen) was given every four hours five minims of the ol. of eucalyptus glob. in emulsion, to use every hour a gargle of carbolic and tannic acids suitably diluted, to undergo daily inunction with an emulsion of eucalyptus oil (3ss to f5j) made with glycerine to promote adhesion to the skin, and to have the scalp daily sprinkled with a lotion containing eucalyptol, with a small quantity of almond oil. This treatment is stated to have produced immediate effect.

—Thorne, in *Lancet*.

EXCISION OF ENTIRE TONGUE WITH SCISSORS.—

Excision through mouth.		Excisions preceded by laryngotomy or tracheotomy.		Excisions below the jaw.		Excisions with division of the jaw and those where portions of jaw were removed.			
79		9		9		7			
Simple uncomplicated excisions.		Excision with removal of floor of mouth, tonsils and glands.							
66		13							
Recovered	Died	Recovered	Died	Recovered	Died	Recovered	Died		
63	3	9	4	7	2	2	7	3	4

Total number of cases, 104; recoveries, 84; deaths, 20.—*Brit. Med. Jour.*

AFTER an extensive experience in the treatment of tuberculosis by tuberculin, Mr. Cheyne, in the *British Medical Journal*, publishes a series of cases exhaustively discussing them. He arrived at the conclusions:

1. That by means of a short preliminary course in lupus, tuberculin was of use in bringing into sight all the foci before more radical measures were undertaken.

2. That in tuberculous bone and joint disease he had but little hope of its being of any value as a preliminary treatment; but that, after ordinary surgical methods had been adopted, its subsequent use might be potent enough to demolish any small outlying foci which had been missed by the surgical procedures. And he went a step further in this direction, and thought that the extent of an operation might possibly be restricted, with the assurance that any small foci left behind could be afterward destroyed by the drug.

YET ANOTHER NEW TREATMENT OF PHTHISIS.—Now that the Koch treatment of tuberculosis no longer monopolizes attention, clinicians are striving to discover other methods of overcoming the dread bacillus. The latest is that of M. Germain-Sée, who shuts his patient up for two, three, or more hours daily in a hermetically closed metallic chamber, into which is slowly admitted a current of compressed air, which, having passed through a mixture of creosote and eucalyptol, is saturated with the vapor of these substances. Since August last ten cases of phthisis have been submitted to this treatment, all of which cases, with one exception, had reached the period of softening, and bacilli had been detected in the sputa. The results obtained were return of appetite—even in advanced cases—gain of weight and strength, fall of temperature to the normal in a week or two, disappearance of hæmoptysis, diminution of cough and of purulency of sputa, cessation of dyspnoea. It is claimed that the method reduces the malady to a purely local lesion, all the general symptoms disappearing, even though râles may persist. M. Sée related the history of seven of his cases, all of which were relieved, and some actually cured. The treatment has been found efficacious in fetid bronchitis (dilatation of the bronchi). It is worthy of note that the communication has been lying in a sealed envelope at the Académie de Médecine since November 4, 1890, the envelope having, at M. Sée's request, been opened at the last meeting of that learned body.—*Lancet*.

INDIGO AS AN EMMENAGOGUE.—Dr. J. L. Jones, in the *Medical Record*, describes a case of amenorrhœa which he cured by the exhibition of indigo. He ordered indigo, ʒij; sub nitrate of bismuth, ʒss, well mixed. Of this the patient took one-half teaspoonful in one-third of a glass of water, for four weeks, when the menses reappeared without pain.

M. M. GRIMAUX and Armand have, it is stated in the *Med. Press and Circ.*, succeeded in producing a quinine by synthesis, which is said to be in every respect identical with the quinine of vegetable origin. They arrived at this result by treating a base obtained from the remigia pedunculata (cuprein) with sodium, and heating the compound thus obtained with chloride of methyl. The scientific interest of this discovery is certainly great, but the cost of manufacture must certainly be enormous.

FOREIGN BODIES IN THE CORNEA can be conveniently located by applying a small quantity of the following solution to the eye: Fluorescin, gr. v; sodii bicarb., gr. ijss; aquæ, fʒss. This solution, when applied to the eye—healthy or inflamed, produces no result, provided there is no abrasion of the corneal epithelium. If this latter condition exists, there is a greenish discoloration of the abraded surface, which will locate the seat of injury at once.

—*Memphis Journal*.

CHAS. STEELE describes a novel method for the "Extraction of Broken Needles," in the *Lancet* for May 9. He places a thick corn-plaster over the point of puncture, and, applying slight pressure, as with a wristlet or light spring; or, if the needle is in the foot, allowing the patient to use the limb. In the course of a week or ten days the needle is stated to work its way to the surface, much like the extraction of a thorn by means of a watch-key.

URETHANE.—Dr. Rademaker, in the *American Practitioner*, states that in the examination of large quantities of albuminous urine he has always met with a crystalline organic compound differing from the normal constituents of urine, and advances proof to the effect that this substance is identical with urethane; and, as urethane is well known to be a powerful narcotic, he advances the theory that to this substance the so-called "uræmic poisoning" in Bright's disease is due.

A NEW ANTISEPTIC.—The Paris correspondent of the *Lancet* describes a new antiseptic called "microcidine," which is composed of 75 per cent. of naphtholate of sodium and 25 per cent. of naphthol, and phenyl compounds. It is soluble in 3 parts of water; is not toxic or injurious to linen or instruments. The antiseptic properties of this compound are inferior to corrosive sublimate, but superior to carbolic acid and boracic acid, 10 and 20 times respectively. Microcidine is eliminated by the kidneys, and is antipyretic. The results are reported to have been excellent.

—*Lancet*.

ALBUMINURIA CAUSED BY ANTIPYRINE.—A gentleman came to a sanitarium with locomotor ataxia. His urine was so heavily loaded with albumin that it almost solidified on boiling. There was so much cedema of the lower extremities that he could hardly put on his shoes; and there was also considerable puffiness under the lower eye-lids. I found that he had been taking for some time, nearly every night, large doses of antipyrine—often as much as sixty

grains a night. This would always stop the ataxic pains. I examined his urine twice a day, and found much albumin in the morning, and very little or none in the evening discharge. It was then, on questioning, I found out about the antipyrine. It was suspected that the antipyrine caused it, on account of there being no albumin in the evening. The antipyrine was stopped, and since then, the albumin has disappeared, and the cedema is much less.

E. L. Tompkins, *Va. Med. Monthly*.

SCIRRHUS OF MAMMA IN THE MALE.—D. McK., aged seventy years, was admitted in February, 1891, complaining of a hard swelling and pain in his left breast. He noticed while working, two and a half years ago, that his brace would rub against the breast and cause some pain. At this time a hard lump, about the size of a bean, could be detected just to the upper and outer side of the left nipple. One year ago it had increased to the size of a hen's egg, and patient had then to discontinue wearing braces. During the past year the tumor has grown very rapidly, and the tenderness has increased. Darting pains felt toward the axilla. Family history negative. His previous history was that of a very healthy man. The whole of the left mamma was found hard and swollen. Some enlargement of the left axillary glands could be detected. Swelling tender on palpation. No retraction of the nipple. Purplish hue over swelling.

The tumor was removed, also the left axillary glands. Primary healing took place only in parts of the wound, a slough of considerable size occurring at the outer end. Patient discharged about four weeks after operation.—*Maritime Med. News*.

THE HAND SPRAY IN THE TREATMENT OF FEVERS.—In the treatment of typhoid and malarial fevers, and in all conditions of hyperpyrexia, where the heart's action is too feeble to permit the administration of antipyrine or phenacetine or antifebrine, and where an immediate reduction of the temperature is necessary, I have, for the past fifteen months, employed the hand-spray.

I use an apparatus that throws a continuous spray, and a solution composed of one drachm of aromatic spirits of ammonia, one drachm of table salt to a pint of warm water. The patient is stripped, and is sprayed from head to foot. The upper portion of the body is first sprayed; and while an assistant, with a towel, is drying this, the lower extremities are subjected to the same treatment.

After the patient has been thoroughly dried, he is covered with a blanket, and soon falls into a calm, refreshing sleep, followed by perspiration, a reduction of the temperature, and a stronger and slower pulse. The relief thus obtained is of course only temporary, but it is just so much gained; and in the treatment of febrile conditions, experience has taught me that "every little is a help."

The advantages of this method over the wet-pack and sponge-bath are obvious. It is easier to handle; it is not necessary to disturb the patient; it is more elegant, more refreshing, and equally as effective.

I have recently used this in the treatment of a young Englishman who came here from Demerara suffering with "jungle fever," and I never failed to reduce the temperature two or three degrees. But it is in treatment of typhoid and continued fevers, where the patient's life frequently depends upon an immediate reduction of the temperature, that this method has been found particularly useful.

—J. F. Lynch, *Va. Med. Monthly*.

At the closing meeting of the Glasgow Philosophical Society, held on the 29th ult., a very interesting report was given by Prof. McKendrick, of the University, and Dr. Wm. Snodgrass, on "The Physiological Action of Carbon-monoxide of Nickel, Ni (CO)." This substance, lately discovered by Mr. Ludwig Mond, is a clear, colorless liquid, and, when exposed to the air, it readily evaporates and decomposes into metallic nickel and carbonic oxide. It is intensely poisonous, and when present in the atmosphere to the extent of $\frac{1}{2}$ per cent., proves fatal to animal life. When injected subcutaneously, even in very minute quantity, it acts as a respiratory poison, giving rise to symptoms similar to those produced in carbonic oxide poisoning. The spectrum of the blood of an animal poisoned with it is similar to that of carbonic-oxide hæmoglobin. Uniting with the hæmoglobin of the blood, it apparently prevents the tissues from being supplied with a due amount of oxygen, and, oxidation being interfered with, there is a large and prolonged fall of temperature. The extremely poisonous nature and proneness to decomposition of the substance render it as yet unsuitable as an antipyretic, but means may be devised of diluting it, so that it may be of value in the reduction of high temperature of the body.—*Hospital Gazette*.

GALVANISM IN AMENORRHŒA.—Strong, in the *Boston Medical and Surgical Journal*, April 16, speaks of a type of patients where various subjective symptoms, especially disturbances of the vaso-motor system and other reflex phenomena are presented in connection with amenorrhœa. Physical explanation, as by mal development, displacement or recognizable abnormality in the uterus itself, or its adnexa, is lacking. The patients are strong, healthy-looking women, not the victims of anæmia or organic disease. When married they are sterile. The reflex nervous symptoms presented are akin to those accompanying the menopause. Cephalic pains, inaptitude for the usual employments, depression, perhaps even tinged with melancholy, sleeplessness, and kindred disorders exist. As regards the medical treatment of these cases it is useless. Local measures, while productive of some slight amelioration in some of the cases, as a rule, fail to do any good. The galvanic current, however, will give relief to the subjective symptoms from which these patients suffer, although the certain induction of the catamenial flow cannot be promised. The method of application has been the introduction of an intra uterine electrode insulated to within an inch of its point which is made of platinum, a broad abdominal electrode of zinc covered with cotton. The current varies from fifteen to forty milliamperes. The positive pole is abdominal, and is applied alternately over either ovarian region for fifteen minutes. Immediately, and for about twenty-four hours after the application, a brown discharge escapes from the uterus. Occasionally very disagreeable crampy pains are produced, but otherwise no ill effects have been noticed.

FORMS OF AMENORRHŒA WITH TREATMENT.—Primitive amenorrhœa, a condition when the function has never been established, may be said to exist when a girl has reached the age of sixteen or seventeen without the appearance of menstruation. Frequently this is accompanied by general symptoms, such as rush of blood to the head, persistent headache, palpitation of the heart, dizziness, frequent nose bleed, and local symptoms of periodical attacks of pain in the lower abdomen, leucorrhœa, painful swelling of

the breasts and disturbances of micturition. If these do not exist, and the patient is robust and well-developed, no treatment is indicated. If the patient is suffering in consequence of its non-appearance, treatment is indicated. In the majority of such cases general measures are sufficient. An examination should be avoided, if possible. The main reliance in treatment should be placed upon iron, aided by a rigid observance of the laws of hygiene. Electricity is of service in some of these cases, faradization being the preferable form. It may be applied from the abdomen through to the back, placing the abdominal pole, which may be indifferently either positive or negative, alternately over each ovary, or over the uterus itself.

Acquire amenorrhœa is most commonly due to pregnancy. A few cases of amenorrhœa present themselves where a mental shock seems to be the determining cause. Persistent amenorrhœa sometimes follows confinement, even though the woman does not nurse her child. The pathological condition here seems to be super-involution. A common cause, especially in the emigrant population, is the change of climate experienced in changing from one country to another. Then, at times, there is a direct connection between amenorrhœa and obesity. The treatment of the acquired form of amenorrhœa does not differ essentially from that of the primitive form, tonic and supporting measures, the judicious use of electricity, and in the cases accompanied by obesity; efforts to reduce the fat, as far as possible, should be resorted to.—Davenport, in *Boston Med. and Surg. Jour.*, April 16.

TREATMENT OF DEFORMITIES FOLLOWING INFANTILE SPINAL PARALYSIS.—In an abstract of a paper read at the Tenth International Congress, Berlin, 1890, De Forest Willard gives the essentials of the surgical and mechanical treatment of the deformities following infantile spinal paralysis. These deformities are produced by muscular atrophy, degeneration, and contracture, together with want of bone-growth, and the distortions which result from locomotion. The deformities are frequently so great that the individual spends his life upon the floor, and the members become so misshapen that they are mechanically unsuited for locomotion, even could muscular power be restored. Surgical measures offer the most rapid and efficient hope for relief in these conditions, and they may be classed under the heads:

1. Tenotomy.
2. Myotomy.
3. Division of contracted fasciæ and other tissues.
4. Force.
5. Resection.
6. Osteotomy.
7. Amputation.

The first four procedures are frequently combined as one operation. Resection is sometimes desirable at the knee where there is great bone-distortion, and in frail limbs in order to secure a stiff walking member. Dr. Willard's conclusions are:

1. Even the severe resultant deformities of infantile paralysis are capable of being benefited by the skilful employment of surgical measures and mechanical appliances. No case with fairly strong upper extremities should remain in helpless cripplehood, since even crutch locomotion is far preferable to a life upon the floor or upon the bed.

2. The deformities following infantile paralysis can be largely prevented by the early use of some form of apparatus.

3. Surgical measures in long-standing cases should usually precede mechanical appliances, since pain and time are thereby saved, and the resulting limbs are in nowise inferior to those obtained by the slower process of mechanical rectification.

4. The surgical measures to be employed are tenotomy, myotomy, division of the fasciæ, application of force, and resection. Osteotomy and amputation are sometimes necessary.

5. Mechanical appliances should be used to retain the limb in proper position, but they should not interfere with the circulation of the member. Crooked limbs can often be straightened so as to be made a part of the apparatus, and the muscles of these limbs should be compelled to do their full extent of work in supporting the body. The apparatus must frequently be made to support a large portion of the weight of the body, the helpless, frail-like limbs being accessories.

6. No case should be abandoned without the most careful and repeated attempts of rectification, as even feeble locomotion will in time become greatly improved by exercise in walking, and the health and happiness of the individual will thereby be greatly increased.—*Am. Jour. Med. Science*, May, 1891.

Medical News and Miscellany.

THE *British Med. Journal* of May publishes a draft of a supplemental charter for the University of London.

INFLUENZA has made its appearance in England as well as in America, and cases are reported in most towns.

DR. CARL H. VON KLEIN has removed from Dayton to Cleveland, Ohio, and has located at 122 Euclid avenue, rooms 25 and 26.

WHAT a wonderful age we live in, to be sure! Here within a few weeks we have seen pictures of sounds and have heard colors!

DR. W. M. POWELL will remove permanently from Philadelphia to No. 26 South Indiana avenue, Atlantic City, New Jersey, June 1.

OUT of all the candidates coming before the Examining Board of the U. S. Marine Hospital Corps, at its last session, not one was successful.

BARON HIRSCH has sent a check for £1,000 to the North-West London Hospital, which has been in financial straits for some time past.—*Hosp. Gaz.*

It is announced that Professor Koch is preparing a reply to all the criticisms that have been made on his method. Professor Virchow's objections are to be dealt with in detail.

THE managers of the Royal Infirmary have reserved one hundred and ten beds for the exclusive instruction of women students, especially those of Queen Margaret College, Glasgow.—*Hosp. Gaz.*

MAYO ROBSON quotes the result of ten cases of large tuberculous abscess associated with bone disease, in support of the treatment by aspiration and injection of a solution of iodoform in ether.

D. D. CUNNINGHAM, of Calcutta, has published a paper in which he states that he has isolated ten different species of cholera comma bacillus, and that Koch's theory that cholera is primarily due to the access of a specific comma bacillus to the interior of the intestinal tract must be finally abandoned.

ALTHOUGH we expressed some doubt, in our last issue, about the cases of influenza reported in the Maritime Provinces being true influenza, we must now state our belief that there have been among us within the last few weeks, cases of genuine la grippe.
—*Maritime Med. News.*

TUBERCULOSIS FROM CIGARS.—It is stated that a German physician, on examination of a number of cigar tips, found that many of them were infected with tubercle bacilli. The makers were tuberculous, and in the manufacture of the cigars moistened the tips with their saliva.—*Hosp. Gaz.*

A WORD TO AURISTS.—An invitation is given to all aural surgeons to send a brief statement of their views and experiences concerning the operation for excision of the drum head or ossicles. A prompt contribution to this consensus of opinion, for early publication, will be appreciated. Address S. S. Bishop, 70 State street, Chicago.

PROFESSOR D. B. ST. JOHN ROOSA, President of the New York Post-Graduate Medical School and Hospital, visited the new building of the Philadelphia Polyclinic on Wednesday to study the construction of that building with reference to making additions and improvements in the institution of which he is the presiding officer.

A GLASGOW doctor, in his will, leaves the whole of his estate to his two sisters, and then inserts this extraordinary clause: "To my wife, as a recompense for deserting and leaving me in peace, I expect the said sister Elizabeth to make her a gift of 10s. sterling, to buy a handkerchief to weep in after my decease." The wife, however, has yet to be heard from.

MUSCÆ VALITANTES.—This annoying phenomenon, so frequent in myopia and in conditions affecting the inner coats of the eye, is happily relieved, says the *Gazette des Hôpitaux*, by the following treatment, that must be persisted in for some time. It consists in the daily instillation into the eyes of a solution of one part of potassium iodide in two hundred parts of distilled water.—*N. Y. Med. Journal.*

OUR readers have been fully informed as to the Gibbes-Shurly method of treating tuberculosis. Messrs. Parke, Davis & Co. announce that, at the request of Dr. Shurly, they have prepared solutions of chemically pure iodine and chloride of gold and sodium, which are put up in one ounce bottles, and will furnish physicians with clinical reports embracing the method of using these remedies.

AN epidemic, the exact nature of which official inquiries had failed to determine, was raging in Canton on the despatch of the last mail. The disease, whether cholera or influenza, was generally attributed to long-continued drought. It is stated that hundreds of both sexes were falling victims daily, undertakers being unable to turn out in sufficient numbers coffins in which to bury the dead.—*Hospital Gazette.*

OWING to the numerous deaths from the effects of chloroform for some time past, the jury at an inquest at St. Thomas' Hospital thought fit to enjoin on the hospital authorities the necessity for greater precaution in the examination of the heart before administering the anæsthetic. As a matter of fact, however, the examination of the heart renders but little assistance in foretelling disaster.—*Hosp. Gaz.*

A RUMOR reaches me which, however, I have not yet had time to authenticate, that at one of our metropolitan hospitals recently a young surgeon, who is making a considerable reputation as a bold operator, performed an operation of such a formidable character that the attendant, when asked to take the patient back to his bed, walked off with that portion of the body, which ultimately found a resting place in the pathological museum. Surgery appears to be advancing in this country "by leaps and bounds."

—*British Sarcasm.*

THE French Society of Hygiene offers a gold medal of 200 francs, a silver medal and two bronze medals, to the authors of the best essays on the following subject:

"What is the best course to pursue before the arrival of a surgeon in cases of persons who are the victims of accidents in large factories or on the public streets."

For further details the Society may be addressed at its office, 30 Rue de Dragon, Paris.

DR. J. MOUNT BLEYER has made a special study of the phonograph in connection with diseases of the throat. He is now busying himself with the perfecting of an acoustic or phonetic alphabet, and the proper method of recording and reproducing the normal and abnormal heart sounds. Dr. Bleyer, speaking of the phonograph, said: "The whole of 'Nicholas Nickelby' can be recorded upon four cylinders each four inches in diameter and eight inches long. One of these instruments in a family or in a hospital could, by the aid of a multiple ear-piece, be made to read a book to a number of persons."

THE SOUNDS OF COLORS.—A beam of sunlight is made to pass through a prism, so as to produce the solar spectrum or rainbow. A disk, having slits or openings in it, is made to revolve, and the colored light of the rainbow is made to break through it and fall on silk, wool, or other material contained in a glass vessel. As the colored light falls upon it, sounds will be given by the different parts of the spectrum, and there will be silence in other parts. If the vessel contains red worsted, and the green light flashes upon it, loud sounds will be given. Only feeble sounds will be heard when the red and blue parts of the rainbow fall upon the vessel.

IMPORTANT IMPROVEMENT IN MICROSCOPIC LENSES.—It is stated that an immense improvement has recently been effected in the manufacture of glass for optical instruments, by means of the addition to the ordinary materials of phosphorus and chlorine, which in some, as yet unexplained, way cause the glass to be very much more transparent, and enable it to receive a much higher degree of polish than any optical glass hitherto manufactured. Thus microscopes can be made which will render objects of the diameter of only the one-eight millionth of a millimeter visible, whereas with the best instruments now in use the diameter of the smallest object that can be seen is one-sixteenth thousandth of a millimeter.—*Lancet.*

PARKIN PRIZE ESSAY.—In terms of the bequest made to the Royal College of Physicians of Edinburgh, by the late Dr. John Parkin, Fellow of the College, a prize has been offered for the best Essay "On the Curative Effects of Carbonic Acid Gas or other Forms of Carbon in Cholera, the Different Forms of Fever, and other Diseases." The prize is of the value of one hundred pounds sterling, and is open to competitors of all nations. Essays intended for competition, which must be written in the English lan-

guage, to be received by the secretary not later than December 31, 1892. Each essay must bear a motto, and be accompanied by a sealed envelope bearing the same motto outside and the author's name inside. The successful candidate must publish his essay at his own expense, and present a printed copy of it to the college within the space of three months after the adjudication of the prize.—*Practitioner.*

ILLEGAL PRACTICE OF MEDICINE ON A DEAD BODY (*Gazette Hebdom. des Sciences Medicales*).—A singular question has recently arisen as to the rights of an unqualified practitioner to perform a surgical operation on a dead body, and was brought before the tribunal of Espalion, which has decided in the negative. The circumstances are as follows: A woman, named Riols, had died at the hamlet of Sarran. The curate of the parish, who had administered the customary rites of the Church, was in the chamber of death with a neighbor, and persuaded him to perform a Cæsarian operation to endeavor to save the child, the woman being pregnant. The operation was performed successfully, and the child lived. The amateur surgeon was summoned before the tribunal and sentenced to pay a fine of fifteen francs for illegal exercise of medicine.

—*Provincial Med. Journal.*

KING'S ROYAL GERMETUER.—

Mix:

Sulphuric acid.....	2 oz.
Water saturated with sulphuretted hydrogen.....	1 oz.
Hydrant or well water to make....	1 gal.

Adding first the acid to the water, and then the sulphuretted hydrogen, you will have a compound that will give the chemical and physiological effects of this great "honest medicine for the people."

Thus it will be seen that this "honest medicine for the millions" can be made at a cost of less than six cents a gallon, yet this great scientist and philanthropist only asked the "dear people" \$40 per gallon at first; he then fell, for philanthropic reasons alone, to \$24, and now, as his love is increasing, he has again reduced the price to \$16 per gallon, or \$1 for an eight-ounce bottle.—*Dixie Doctor.*

ANOMALIAS ANATÓMICAS DEL APARATO GENITAL DE LA MUJER.—Dr. D. Juan Soler y Buscallá (*Barcelona*).—The moral advantages of a double vagina: As health officer the author was examining a woman of the town, but, after passing the speculum, could see nothing of the uterus, although its existence had been proved by the birth of two children. Noticing his perplexity, the patient, a lively young Frenchwoman, said with the utmost nonchalance: "You won't find what you are looking for down there, señor; I have two passages with one entrance, and you have taken the wrong turning—permit me." A little manoeuvre, and there was the *os* plainly enough! A more exact examination showed that she had a double vagina, the septum a thin lax membrane, with which she could deftly shunt the speculum into a *cul-de sac* or on the uterus at will. And, then, after entreating that her secret should not be disclosed, she explained with engaging frankness the advantages of this novel arrangement: "You should know there is a young fellow who adores me; for him I reserve the true passage. Do you think I would allow any one else to enter there! No, señor, I respect myself too much. But the other is at the service of my friends, *there* they may innocently divert themselves as much as they please."

—*Provincial Med. Journal.*

WEEKLY Report of Interments in Philadelphia, from May 9 to May 16, 1891:

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Abscess	4	1		Influenza	7	1	
Alcoholism	3			Inflammation bladder	1		
Apoplexy	16			" brain	15		
Asphyxia	1			" bronchi	6		
Asthma	1			" kidneys	5		
Bright's disease	17			" liver	3		
Burns and scalds	1	2		" lungs	22	15	
Cancer	12	1		" pericardium	3		
Casualties	3	2		" peritoneum	1		
Cerebro-spinal meningitis	1			" s. & bowels	2		
Congestion of the brain	1	5		" spine	8		
" lungs	2	2		Jaundice	1		
Cholera infantum	3			Leucocythemia	1		
Cirrhosis of the liver	49	7		Locomotor ataxia	1		
Consumption of the lungs	16	7		Mania-a potu	1		
Convulsions	7	16		Marasmus	15		
Croup	3	7		Measles	1		
Cyanosis	5	3		Neuralgia, heart	1		
Debility	2	1		Obstruction of the bowels	1		
Diabetes	2	1		" Old age	19		
Diarrhoea	2	1		Purpura Hemorrhagica	1		
Diphtheria	25	11		Paralysis	3		
Dropsy of the heart	2	1		Poisoning	1		
" spine	1	2		Stricture of Oesophagus	1		
Drowned	1	2		Sclerosis	1		
Dropsy of the brain	1	2		Scrofula	1		
" chest	1	1		Septicemia	1		
Dysentery	3	3		Softening of the brain	3		
Erysipelas	1	1		Shock, surgical	2		
Enlargement of the heart	1	1		Suffocation	1		
Fatty degeneration of the heart	2	1		" illuminating gas	1		
Fatty degeneration of the kidneys	1	1		Suicide	2		
Fever, malarial	1	1		Syphilis	1		
" scarlet	1	11		Teething	3		
" typhoid	9	10		Tumor	3		
Gangrene	1	1		Ulceration of the throat	1		
Hemorrhage	1	1		Uremia	3		
Inanition	1	12		Whooping cough	6		
				Total	265	201	

THE Apollinaris Spring was discovered in 1851 by Herr Kreuzberg, who had a vineyard near the river Ahr. He noticed that his vines would not flourish in a particular spot, and learned that carbonic acid gas issued from the ground there. A well was sunk, and at the depth of forty feet a spring was reached. The peculiarity of the spring consists in its containing such an extraordinary proportion of carbonic acid gas as to cause the water to boil upward as if it had been forced from below under strong pressure. The volume of gas is so great that it is dangerous to approach the spring on a windless day. In 1873 an English company was formed to bottle and export the water. The temperature of the spring is 68 F. The water is drawn from a depth of fifty feet below the surface, and mixed with the gas, which has been collected and stored under pressure. In 1873 about 2,000,000 bottles were filled. Last year 16,000,000 were used. The corks last year weighed 57 tons. Four hundred and fifty persons are employed filling 91,000 bottles a day.

MEDICAL JOURNAL MAKING.—Until within a comparatively recent period, this business was monopolized by a few college professors and medical book sellers, who were content to jog along in beaten paths at a pace that made progressive physicians exceedingly nervous. They filled their journals with prosy matter that served as a post-prandial soporific to the average reader who attempted to wade through their monotonous pages. No amount of prodding seemed to stimulate them. Enterprising manufacturing pharmacists and surgical supply dealers, growing impatient at such long continued lethargy, entered the field and put their brains and energies into the work of journal making. The old stagers held up their hands in holy horror, but their enterprising neighbors had come to stay, and they are with us yet, and what has been the result? A comparison of the medical journals of to-day with those printed twenty years ago shows

that wonderful progress has been made in their mechanical as well as literary make-up. Much newspaper spirit has been injected into their columns, and readers peruse them with pleasure and profit.—*Dixie Doctor.*

PATENTS, ETC., on medical subjects:

Accouchment apparatus for instruction	M. Klautsch	Halle-on-the-Salle, Germany.
Atomizer	J. Schoettl	Brooklyn, N. Y.
Dental cotton-pellet machine	R. N. Roberts	Rockville, Conn.
Hair-tonic	M. McGillvroy	Vancouver, Canada.
Hair-tonic	L. C. Peters	Wallaceton, Pa.
Artificial musk	A. Bauer	Gispersleben, Ger'y.
Truss	W. M. Greenlee	Pittsburg, Pa.
Feeder for charging liquids with chemicals	A. J. West	Chicago, Ill.
Dental matrix	C. A. Meister	Allentown, Pa.
Inhaler	G. Elliott	Meadville, Pa.
Obstetrical forceps	W. H. Hamilton	Brooklyn, N. Y.
Making sodium and potassium	H. Y. Castner	London, England.
Surgical Electrode	J. H. Gunning	New York, N. Y.
Vaginal syringe	J. W. Haughwout	Omaha, Neb.
Artificial teeth	E. C. Taylor	Humansville, Mo.

TRADE-MARKS.

Eye-water. (The words "Taylor's Yellow Water" a star and a human eye)	A. L. Taylor & S. A. Way	Hawkinsville, Ga.
Hair-tonic. (The word "Herbalone")	Mary W. Denike	New York, N. Y.
Effervescent Carlsbad powder. (A rock standing out prominently from the surrounding landscape, and a deer on top of said rock)	S. Kutnow & Co	London, England.
Liquid expectorants. (A circular band having an ornament at its lower pole and a scroll with inwardly-coiled terminals, the words "Syrup of Pineapple Expectorant" and the words "Southern Medical Institute")	W. D. Rea	Louisville, Ky.
Fluid medicines containing pepsin, pancreatine, caffeine, and celery. (The word "Pan-Peptic")	Sharp & Dohme	Baltimore, Md.
Headache powders. (The facsimile signature of "W. Scott Taylor")	W. S. Taylor	Trenton, N. J.
Salves, pills etc. (The word "Sunbeam")	Wheatley Bros	Chicago, Ill.
Pills. (The representation of a small man shown inside the picture of a larger one)	R. Hudnut	New York, N. Y.
Remedy for rheumatism, gout, and neuralgia. (A serpent coiled in a circle and the letters "J. W.")	A. Lilly	Baltimore, Md.
Liquid remedy for chapped face and hands	H. Lambeck, Jr	Milwaukee, Wis.
Liniments, ointments, and salves. (The word "Axtel" and the representation of a horse's hoof, a horse, and two whips)	The Superior Horse Foot Oil Co	Chicago, Ill.

LABELS.

"Quinine Tonic"	Quinine Tonic Co	Louisville, Ky.
"Crocker's Magical Stomach Powders"	J. D. Crocker	Norwich, Conn.
"Dumestre & Heintz's Southern Ginger Tonic"	Dumestre & Heintz	New Orleans, La.

CHARLES J. GOOCH, Patent Attorney.

LOCK BOX 76, WASHINGTON, D. C.

"GOD HELP THE RICH—THE POOR CAN STEAL." Under this startling head line the *Fraternal Monitor* reprints a review of the report of the Insurance Commissioner of the State of Missouri, for the year 1889, in which he sounds a note of alarm to arouse business men, farmers and mechanics to a sense of the danger threatened by the enormous growth of corporate capital and power.

For hundreds of years fraternal and co-operative associations have been gradually forcing themselves upon the people, and as we advance in civilization and education, especially the middle and poorer classes find growing upon them more and more the necessity for organization which shall provide protection from the grinding oppression practised by the rich and powerful of the earth. In our own country advancement has been more rapid than in any other, because our political and social life is better adapted to this growth.

The Farmers' Alliance in the West, unwieldy and crude as it is, in many respects, has made itself felt all over the country. Various labor organizations have caused more uneasiness than any other one thing that has happened in our country since the war of the rebellion. These forces are brought about by the restlessness of the people who are dissatisfied with their condition, or rather are determined, in some manner, to put a stop to the rapid growth of the wealthy corporations.

On the first day of January, 1890, thirty-four insurance companies of the United States, doing business in the State of Missouri, showed assets of \$700,000,000. This stupendous amount had been collected from policy holders, over and above the sum necessary to pay all death claims, endowments, surrender values, annuities and expenses of all kinds, and this accumulation has only assumed such vast proportions recently.

In 1859 there were fourteen companies with \$20,000,000; ten years later there were sixty-nine companies with \$180,000,000; in 1879, thirty-one companies had \$336,000,000, and at the close of 1889, as before stated, thirty-four companies had \$700,000,000.

The same writer has made an interesting calculation, in which he says that with no new insurance, and no termination of policies, except by death, in twenty odd years these same companies would have \$1,900,000,000.

The possession of this enormous amount of money carries with it so much power that it is not surprising that the people should become alarmed, and for their own protection organize their own societies to carry out the purposes for which these companies were originally organized, and by making their charges less than one-half, and distributing their surplus, accomplish additional good for all classes of people.

It is said that the fraternal and co-operative or mutual associations cannot be successful, and yet it is a fact that of the companies above mentioned the Mutual Life, the New York Life, the Penn Mutual, the Mutual Benefit of New Jersey, the Connecticut Mutual, the Massachusetts Mutual, the Northwestern of Milwaukee, represent over \$500,000,000 of assets, and were organized as purely mutual companies, not one of the promoters ever put up a dollar, there never was a dollar of capital, there never was a dollar of personal responsibility, and yet who would say that eight companies with \$500,000,000 of surplus have not proved successful?

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from May 3, to May 16, 1891.

By direction of the acting Secretary of War, Lieutenant-Colonel Dallas Bache, Surgeon, is relieved from duty as a member of the Army Medical Examining Board, New York city, and will return to his proper station, Omaha, Neb., and resume his duties as Medical Director, Department of the Platte. Par. 5, S. O. 108, A. G. O., May 12, 1891.

By direction of the acting Secretary of War, the extension of ordinary leave of absence granted Captain Henry P. Birmingham, Assistant Surgeon, in S. O. 81, A. G. O., April 10, 1891, from this office, is changed to leave of absence on account of sickness, to date from May 1, 1891. Par. 4, S. O. 108, A. G. O., May 12, 1891.

Lieutenant-Colonel James C. McKee, Surgeon, having been found incapacitated for active service by an Army Retiring Board, is, by direction of the acting Secretary of War, granted leave of absence until further orders, on account of disability. Par. 11, S. O. 106, A. G. O., Washington, D.C., May 9, 1891.

Captain Louis A. LaGarde, Assistant-Surgeon, is relieved from duty at Fort Assiniborne, Montana, and will report in

person to the commanding officer Fort McHenry, Md., for duty at that post, relieving Major Charles B. Byrne, Surgeon. Major Byrne, on being relieved by Captain LaGarde, will report in person to the commanding officer Fort Assiniborne, Montana, for duty at that post. Par. 14, S. O. 102, A. G. O., May 5, 1891.

Major Joseph B. Girard, Surgeon, is relieved from duty at Alcatraz Island, California, and will report in person to the commanding officer Benicia Barricks, California, for duty as Post-Surgeon at that post, and Attending-Surgeon at Benicia Arsenal, California, relieving Major John H. Janeway, Surgeon. Major Janeway, on being relieved by Major Girard, will repair to Philadelphia, and assume the duties of Attending-Surgeon and Examiner of Recruits in that city, and in addition to his duties in Philadelphia will perform the duties of Post-Surgeon, Frankford Arsenal, Pa. Par. 14, S. O. 102, A. G. O., May 5, 1891.

First Lieutenant Julian M. Cabell, Assistant-Surgeon, is relieved from duty at Fort Niobrara, Nebraska, and will report in person to the commanding officer Fort Bedford, North Dakota, for duty at that post, relieving Major Valery Havard, Surgeon. Major Havard, on being relieved by Lieutenant Cabell, will report in person to the commanding officer Fort D. A. Russel, Wyoming, for duty at that post. Par. 14, S. O. 102, A. G. O., May 5, 1891.

By direction of the acting Secretary of War, paragraph 5, S. O. No. 24, January 29, 1891, from this office, granting Major Julius H. Patozki, Surgeon, six months' leave of absence, is so amended as to grant said leave on surgeon's certificate of disability. Par. 15, S. O. 99, A. G. O., May 1, 1891.

Captain William P. Kendall, Assistant-Surgeon, is relieved from duty at Fort D. A. Russell, Wyoming, and will report in person to the commanding officer Fort Douglass, Utah Territory, for duty at that post. Par. 14, S. O. 102, A. G. O., May 5, 1891.

Changes in the Medical Corps of the U. S. Navy for the two weeks ending May 16, 1891.

BRADLEY, G. P., Surgeon. Detached from "Mohican," and placed on waiting orders.

WALTON, T. C., Medical Inspector. Ordered to Naval Academy to examine applicants physically for admission.

BRIGHT, GEO. A., Surgeon. Order to Naval Academy to examine applicants physically for admission.

STEELE, J. M., Passed Assistant-Surgeon. Ordered to Naval Academy to examine applicants physically for admission.

DICKSON, S. H., Surgeon. Ordered to the "Constellation."

LEACH, PHILIP, Past Assistant-Surgeon. Detached from Naval Academy, and to the "Constellation."

RUSH, W. H., Passed Assistant-Surgeon. Detached from "Saratoga," and prepare for sea.

ATLEE, S. W., Passed Assistant-Surgeon. Detached from Navy Yard, League Island, and to "Saratoga."

BROWNELL, C. DE. W., Assistant-Surgeon. Ordered to Navy Yard, League Island, Pa.

STREETS, P. H., Surgeon. Detached from Naval Examining Board, and prepare for sea.

MACKIE, B. S., Surgeon. Ordered as member of Naval Examining Board.

CURTIS, L. W., Passed Assistant-Surgeon. Detached from Naval Academy, and to the Practice Ship "Constellation."

LEACH, PHILIP, Passed Assistant-Surgeon. Orders to U. S. Practice Ship "Constellation" revoked.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the week ending May 9, 1891.

AUSTIN, H. W., Surgeon. Detailed as Chairman of Board for Physical Examination of Candidates for Appointments, Revenue Marine Service. May 9, 1891.

CARRINGTON, G. M., Passed Assistant-Surgeon. Granted leave of absence for twenty-three days. May 5, 1891.

BRATTON, W. D., Passed Assistant-Surgeon. When relieved at Portland, Oregon, to proceed to Chicago for duty. May 9, 1891.

MACRUDER, G. M., Passed Assistant-Surgeon. Detailed as Recorder of Board for Physical Examination of Candidates for Appointments, Revenue Marine Service. May 9, 1891.

CONDUCT, A. W., Assistant-Surgeon. Relieved from duty at Chicago, Ill.; ordered to Portland, Oregon. May 9, 1891.

GEDDINGS, H. D., Assistant-Surgeon. To proceed to New York on special duty. May 9, 1891.

BROWN, B. W., Assistant-Surgeon. To report to commanding officer, Revenue Steamer "Rush" on the 14th instant. May 7, 1891.

The Times and Register.

Vol. XXII, No. 22. NEW YORK AND PHILADELPHIA, MAY 30, 1891. Whole No. 664.

PAGE	PAGE	PAGE
ORIGINAL ARTICLES.		
PROF. KOCH'S CURE OF TUBERCULOSIS AND SCIENTIFIC THERAPEUTICS. By M. Semmola, M.D. - - - - -	443	
A BRIEF REPUTATION OF SOME STATEMENTS CONTAINED IN AN ARTICLE ENTITLED: "A REVIEW OF THE TREATMENT OF VARICOCELE." By Morris H. Henry, M.D., LL.D., New York - - - - -	447	
DELUSIONAL INSANITY; PROBABLY DUE TO JABORANDI. By William F. Waugh, M.D. - - - - -	448	
THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, M.D. - - - - -	449	
EDITORIALS.		
THE CITY HOSPITAL EXAMINATIONS - - - - -	451	
ANNOTATIONS.		
Editorial Change - - - - -	453	
First Annual Report of the Midwifery Dispensary of New York City - - - - -	453	
One of the Most Serious Results of the Calamity that has Fallen on the City and State Treasuries - - - - -	453	
The Evil Attributed to Condiments - - - - -	453	
Seventeenth Annual Report of the Michigan State Board of Health - - - - -	453	
LETTERS TO THE EDITOR.		
The "Pure Water" Swindle. <i>Clevenger</i> - - - - -	454	
THE MEDICAL DIGEST.		
The Internal Use of the Simple Astringents. <i>Walker</i> - - - - -	450	
Examination of Urine for Life Insurance. <i>Purdy</i> - - - - -	450	
Treatment of Burns. <i>Ala. Age</i> - - - - -	454	
Excellent Formula for a Sedative Lozenge. <i>John Wyeth & Bro.</i> - - - - -	454	
A Warning About the Forceps. <i>Goodell</i> - - - - -	454	
Alveolar Abscess. <i>Clevenger</i> - - - - -	454	
Mydriatics After Cataract Operations. <i>Memphis Med. Jour.</i> - - - - -	454	
Rules for Personal Disinfection of the Accoucheur. <i>Practice</i> - - - - -	455	
Limited Diet at Sea. <i>Sanitarian</i> - - - - -	455	
Formulas for Goddard's Astringent Gargle. <i>American Journal Pharmacy</i> - - - - -	455	
The Examination of the Blood for Laveran's Malarial Germ - - - - -	455	
Liebreich's Remedy for Tuberculosis. <i>Moore</i> - - - - -	455	
Nicotine Psychosis. <i>Kjellberg</i> - - - - -	456	
An Unusual Symptom in Middle-ear Disease. <i>Lake</i> - - - - -	456	
Treatment of Some Forms of Corneal Opacities by Rubbing. <i>Ferdinands</i> - - - - -	456	
Allingham's Ointment for Hemorrhoids - - - - -	457	
Hot Colon Douches for Pelvic Pain. <i>Forest</i> - - - - -	457	
Epidemiology of Influenza. <i>British Medical Journal</i> - - - - -	457	
Petroleum in Conjunctivitis. <i>Trousseau</i> - - - - -	457	
Chloralamide. <i>Gordon</i> - - - - -	457	
Return of Menstruation After the Menopause. <i>Thomas</i> - - - - -	458	
Two Cases of Resection of Intestine by Senn's Method. <i>Lane</i> - - - - -	458	
Paget's Disease of the Nipple. <i>Bowlby</i> - - - - -	459	
The Differential Diagnosis and Prognosis of Tinnitus Aurium (Noises in the Head and Ears). <i>Jones</i> - - - - -	459	
When to Stimulate. <i>Stokes</i> - - - - -	463	
MEDICAL NEWS AND MISCELLANY, 468		
ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - 466		
NOTES AND ITEMS - - - - - iv, xii		

Original Articles.

PROF. KOCH'S CURE OF TUBERCULOSIS AND SCIENTIFIC THERAPEUTICS.

By M. SEMMOLA, M.D.,

Professor in the Royal University of Naples; Head Physician in the Hospitals; Senator of the Kingdom of Italy, etc.
(Translated by REV. T. D. MALAN, D.D.)

IN the midst of the universal enthusiasm concerning the alleged discovery made by the famous bacteriologist of Berlin, Prof. Semmola expressed frankly his skepticism as to the possibility of Koch's lymph being a remedy against tuberculosis. His opinion is based upon scientific data and clinical experiment.

Semmola has now been thirty-five years closely engaged in special studies of clinical therapeutics, in search of a possible reconciliation between the researches of the laboratory and their application to clinical therapeutics. His rigorously-scientific deductions have made it impossible for him to share in the universal enthusiasm for his esteemed friend's (Koch) discovery.

Having been requested by the editor of the *Deutsche Revue*, Dr. Semmola made public his scientific arguments on the subject in the well-known Italian medical periodical, *Il Progresso Medico*, which is published in Naples thrice a month.

The starting-point of Pasteur's anti-rabic virus and of Koch's lymph was an erroneous one, and could only lead to erroneous consequences. They, and other scientists, got their inspiration from the fundamental notion that the Jennerian vaccination was an admirable instance of immunity against small-pox, owing to the inoculation of vaccinic virus, which, in their estimation, was a small-pox virus attenuated by passing through the organism of the ox.

This instance, however, has nothing in common with the artificially-produced vaccines of Pasteur and Co.; nay, they are two altogether different things. Moreover, it has not even been proved that Jenner's vaccine was an attenuated small pox virus. Such a question ought to have been scientifically solved before any deduction could be drawn for its comparison and application in other spheres.

Semmola acknowledges that it is not a matter of small consequence to obtain an attenuated *virus* through another animal species, or through physical or chemical means; but to attenuate a virus by passing it through a living organism is one thing, and to attenuate it through oxygen or heat is another. Further, this is not the only philosophical and experimental error; there is another one of no less consequence: Jenner's vaccine, which, rigorously speaking, is still an *incognito*, is inoculated into a healthy man, in order to render his organism refractory to small-pox; or, in other words, to constitute his organism into a sterile ground of culture for the microbic invasion of small-pox—which has not taken place yet, up to date. But this kind of immunity has nothing to do with the immunity which Pasteur, Koch, and others have endeavored to create in a diseased organism, like one bitten by a rabid dog, or already affected with pulmonary tuberculosis. When there is already a virus in the organism, the clinico-biological conditions of that organism are being modified day by day, hour by hour, and even minute by minute, through the evolution that is to lead it to a degree of alteration such as to develop in due time hydrophobia, or any other disease represented by the absorbed virus.

Semmola mentions Pasteur, not because Koch's lymph is an attenuated virus whose inoculation resembles the anti-rabic method, but because there is no room for doubt that Pasteur's labors have prepared the way for Koch's researches.

Now, Koch's lymph has, in the eyes of the true physician, the same sin of origin as all the applica-

tions that are inconsiderately carried from the laboratory into the clinic.

Here Semmola shows the weakness of Koch's starting-point concerning the specific action of his lymph on tuberculosis, which action is still an open question for discussion. Semmola admits that the lymph may prevent the formation of new tubercles, but denies the possibility of its curing the alterations already produced in the organism by years of indwelling tuberculosis. Koch's lymph does not kill the bacilli, whilst, on the other hand, it is not proved whether tuberculosis has even a bacillary origin.

In one word, to cure tuberculosis you must either kill the bacillus tubercularis, or make the organism into a sterile ground for its action; and Koch's lymph cannot produce either of such effects.

That the lymph does not kill the bacilli has been acknowledged by Koch himself. As to its effects upon the organism, it has been proved by experimental pharmacology and clinical therapeutics that the lymph cannot produce any beneficial modification upon it, such as to render it incapable of sheltering the bacillus tubercularis. Such an action can only, and slowly, be produced by prolonged hygienical influences, or by *pharmacii* of mineral origin, like mercury, iodine, etc., in syphilis, scrofula, etc., and in such doses as not to produce any poisoning phenomena. Such a therapeutic action cannot be produced by *pharmacii* of an organic nature, and least of all by alkaloids, which, instead of acting primarily on the activities of nutrition, reach the histologic, muscular, nervous, or glandular elements, provoking immediate disorders in their functions, and producing poisoning phenomena irreconcilable with health and life.

However mysterious the process of Koch's lymph preparation may have been kept thus far, one fact at least is known through analysis, *i. e.*, that the lymph does not contain metallic salts, and that, considering its phenomenal poisoning (toxic) power, it must contain some ptomaine or toxalbumin, *i. e.*, one of those principles formed under the influence of the microbes, which have of late opened such a new and splendid horizon toward the solution of pathological problems. From this standpoint Dr. Semmola renders homage to the great Berlin bacteriologist for his discovery of a new toxic principle, superior in power to all those actually known previously. On this question Dr. Semmola calls the attention of his readers to the fact that it was an Italian chemist—Prof. Selmi—who inaugurated the discovery of the ptomaines.

The biological action of the ptomaines or toxalbumins can only enter the category of the biological actions of the alkaloids, or of the glucosides, or of other organical *acri*, *i. e.*, its action is not noticeable if administered in homœopathic doses, and it is toxic and deadly if given in larger doses.

Now, all the organic principles inoculated into a living organism are eliminated more or less rapidly through the kidneys without leaving any effect after a few days, and, at the present hour, many facts have already substantiated this opinion.

As early as the 25th of November, 1890, Dr. Semmola had concluded one of his articles on the subject in the following words:

"Although I do not hope that it will ever happen, it would, however, be the happiest day of my medical life in which I were able to modify my present conviction through the positive demonstration of clinical facts. Then, also, I should be happy to proclaim Robert Koch a second Jenner. For the present (November, 1890) I only admire in him the great

naturalist, and the most eminent bacteriologist of the day. I cordially wish that Providence may allow the immutable laws of experimental methods and scientific logic to be found in the wrong—at least for this once, and for the sake of the redemption of so large a fraction of mankind."¹

Koch's lymph is a powerful organic poison, unable, however, to either kill the bacilli or to modify the organism so as to render it proof against the bacilli. There seems, however, to be a contradiction between Semmola's negative clinical results and Koch's preliminary experiments upon guinea-pigs. But Koch's laboratory experiments have not proved successful against tuberculosis in clinics and hospitals. The reason of it is that in guinea-pigs the inoculation of the lymph preceded, or followed very closely after, that of the bacilli, so that when these were introduced into the living organism, they at once met the action of the lymph, or could only produce an artificial tuberculosis in a sound organism, no doubt easily cured by the action of the lymph. But from such an apparent cure to the cure of real and inveterate tuberculosis lies a chasm which no laboratory could span.

The Gordian knot of the question consists in pretending to apply to a living organism affected by real tuberculosis the results of mere laboratory experiments, as though the conditions were not altogether different. The bioclinical bases being different, the results cannot be identical. Therefore Dr. Semmola not only denies the curative power of Koch's lymph, but he goes further, and declares impossible any curative discovery upon such principles and methods.

Dr. Semmola then touches upon the "Dangers which may arise from the use of Koch's Lymph." As aforesaid, the lymph does not kill the bacilli, nor modify the organism so as to make it refractory to the action of the bacilli. But there is more; the lymph produces in the organism such effects as to constitute a new and acute, though artificial, disease; which, however short, is not void of danger, and the more real since the biological effects of the lymph are as yet an *incognito*. In some cases it has been impossible to prevent paralysis of the heart, and death. Now, no physician has a right to play with the life of a patient, even under the pretext of experimenting a new remedy, which, in the present case, is a secret remedy of a certainly poisonous nature, and of a dubious curative effect. The well-deserved fame of the great naturalist and his long years of earnest labors cannot constitute an absolute proof in favor of the supposed remedy.

Dr. Semmola concludes by saying that when he shall have seen one case of real cure of real tuberculosis then he will applaud heartily, and make a great *peccavi* for his present skepticism. He also challenges all the eminent Italian and foreign physicians and scientists to make known the real results of their experiments.

As to the lupus cure, Dr. Semmola, not being a surgeon, declares himself to be incompetent. Still, the lupus having nothing to do with tuberculosis, and thus far no real cure having been affected, Bergmann himself has had to attend again one of his patients who had already been discharged as cured.

Finally, as to the importance of Koch's lymph considered as a diagnostic means, Semmola declares it to be a failure also, and in two ways:

¹ *Corriere di Napoli*, 25–26 November, 1890.

(a) Because in chirurgical and pulmonary tuberculosis the diagnosis is but too easy and clear.

(b) Because when the diagnosis is difficult or doubtful, so much the better for the supposed patient, and there is no need of exposing him to the dangerous effects of the lymph for the unprofitable comfort of knowing for a certainty that he is affected with tuberculosis, whose effects might even be accelerated by the action of the lymph, and without the hope of a cure.

Moreover, in doubtful cases there are other and less dangerous means of diagnosis. Furthermore, even as to the diagnostic power of the lymph it is now very much doubted, and even denied, by the experiments of distinguished physicians upon real tuberculosis, in which no reaction was produced, whilst on the other hand the reaction was produced in perfectly sound organisms not affected with tuberculosis.

Koch ought to have matured his observations longer and better before making the communication he made on November 13, 1890, to the Medical Society of Berlin. It might have led to some real good for humanity and advantage of science.

A BRIEF REFUTATION OF SOME STATEMENTS CONTAINED IN AN ARTICLE ENTITLED: "A REVIEW OF THE TREATMENT OF VARICOCELE."

By MORRIS H. HENRY, M.D., LL. D.,
NEW YORK.

THE interest that I have taken and felt on the subject of varicocele—its etiology and treatment—led me to read carefully the extraordinary production under the above title contributed by a Dr. Frank Lydston, of Chicago. It covers nearly nineteen columns of valuable space. It may fairly be termed an exhausting article.

I desire only space enough to correct the false statements connected with his version of my own achievements and contribution on this subject, followed by two additional paragraphs conveying my impressions of the article in its entirety.

He says: "Resection of the scrotum is the safest operation for varicocele, and according to Henry, is a radical cure in the true sense of the term. He reported fifty-nine operations some years ago, which, as far as he could learn, were radically successful. This same operator has since reported a number of cases at various times, for which he claims an equal degree of success. In my early experience with Henry's operation, I was inclined to accept the statements of the ardent advocate of the method without much question. A wider experience and observation has, however, convinced me that too much has been claimed for the operation. To be sure, as Henry naively says, it makes little difference if the operation is again necessary, after a lapse of years, as the method is perfectly safe, but this is begging the question in regard to an alleged 'radical cure.'

"In very large varicoceles the changes in the texture of the various walls are such that pressure and support alone are insufficient to secure restoration of their natural consistency and caliber, even though the pressure be sufficiently firm and continuous. There is little elasticity in the remaining portion of the scrotum, and the tone of the part is apt to remain as impaired as before the operation, the same consti-

tutional conditions prevailing. It is my opinion that stretching and relaxation of the new 'natural suspensory' or scrotum will occur in the majority of severe cases sooner or later. The varicocele may not be as severe as before the operation, and the more urgent symptoms may be relieved; but there is nothing edifying in the spectacle of a good-sized varix a few years, or, perhaps, a few months, after a so-called radical cure. I desire to do the method full justice, however, and am free to say that the subjective symptoms do not always recur *pari passu* with a return of the varix; but I am discussing a 'radical cure,' and hair-splitting is unnecessary."

In connection with this statement the author gives an illustration: Fig. V, of my original instrument, which he terms: "Henry's Improved Scrotal Clamp." He cites as his authority for all this stuff in a foot note: "M. K. Henry, Treatment of Varicocele. J. H. Vail & Co., 1871."

An honest regard for the patience of my readers leads me to forbear any further quotations. A complete refutation of the absurdities and falsehoods contained in the above citation will, I trust, be sufficient, to cast discredit on the entire article. I shall have a few words to say, further on, on the subject of instruments, of which he gives illustrations. I will indulge in no "hair-splitting" and do no "begging the question." I have never resorted to any such methods, and surely, in this contribution, there is neither necessity nor temptation for any such indulgence.

I did not answer or pay any heed to the brochure of M. Edmond Wickham, as he is scarcely more than the recorder of the practice of M. Horteloup, and his entire article and operations were based on my reports—every one of which he quotes—to a limited extent, and his publication did not appear until 1885. It must be patent to any one versed in the literature of, and capable of an understanding of the *modus operandi* of the operation and its results, whence Wickham and Horteloup derived their inspirations. Dr. Lydston claims to have operated in forty cases of varicocele, sixteen of which were by "simple resection of the scrotum." He says: "A recital of these cases in detail would be monotonous, as well as wasteful of valuable space." I agree with him perfectly on this one point. To the charge of being naïve, I will not plead; let the reader judge.

I did not publish any pamphlet in 1871. Mr. Vail was at that time, and for some years after that date, in the service of other parties.

I have never uttered a word nor said anything, in any of my contributions, that could, by any chance, be construed by any person of sound mind, nor lead to the impression, that "it makes little difference if the operation is again necessary, after a lapse of years, as the method is perfectly safe." The instrument, of which he gives an illustration as my "improved scrotal clamp," I discarded more than fifteen years ago. My improved instrument is entirely different, and possesses many advantages over the one he alludes to. Keyes, in his revised edition of Van Buren, on venereal diseases, in speaking of ablation of the scrotum, mentions only one. He says: "The clamp of Henry, of New York, is an admirable one." This compliment reconciles me to the condemnation of Dr. Frank Lydston, of Chicago, who regards it as "bunglesome." In further answer to Dr. Lydston, I extract the following paragraphs from an article entitled, "The radical cure of varicocele attended with redundancy of scrotum demonstrated by time." It was published in the Journal of the American Medical Association, at Chicago, November 10, 1888:

¹ The paper referred to was read before the Southern Surgical and Gynecological Association, and printed from advanced sheets of their transactions in THE TIMES AND REGISTER, May 2, 1891.

My own first practical knowledge of the operation—over thirty years ago, and while yet an undergraduate—was in being accidentally asked to assist the late distinguished and erratic Edward H. Dixon, an alumnus of the College of Physicians and Surgeons, of New York, who performed the operation on a young lawyer. That operation was not a success. The failure was due to the method of operation, and the method was faulty owing to the want of proper instruments for the performance. But to Dixon must be accorded the credit of first calling attention to the operation in this country. I am fully sustained in this view by the testimony of the oldest member of the firm of Tiemann & Co., the celebrated instrument makers; the origin of the firm antedating the period of Sir Astley Cooper's first publication on this subject. I have examined patterns of all the instruments they have made, and heard of the many embryonic efforts of others that never fulfilled a period of gestation. Dixon's instrument consisted of two curved steel bars about four inches in length and a quarter of an inch in thickness perforated at each end for the introduction of screws to hold the bars together when embracing the tissues to be removed. It was a failure. Many attempts have been made by others, within the past few years, to revive this same instrument on account of its cheapness, and the ulterior purpose of associating their names with the operation. Their efforts and so-called "modifications"—a term of license to take unpardonable liberties with other men's inventions—have attracted little or no attention.

My first studies of the nature and best means for the relief of varicocele commenced in 1857. I first published the results of my experience and observations in 1871, in *The American Journal of Syphilography and Dermatology*. I gave a detailed account of my method of operating; illustrations of my instruments; the *rationale* of the operation and the results. While my report met with unusual and not unfavorable attention, it was still urged that obliteration of the veins alone afforded a radical cure. The phantasm of dangerous hemorrhage attending the operation was dispelled on examination of my instruments and method of operating, but "fear of lasting benefit" still remained. Gross, Agnew, Ashurst, Barton, Levis, Hammond, Hutchinson, Van Buren, Keyes, Bumstead, Taylor, Otis, Bangs, Weir, Bull, Abbe, and McBurney have publicly attested their appreciation of my instruments and method. Still, further time was asked ere a verdict should be rendered in accordance with my appeal. I waited eleven years, until 1881. I then told, before the New York Academy of Medicine and the Academy of Surgery, of Philadelphia, of my experiences. This account was published in *The Medical Record*, May 28, 1881, and subsequently in pamphlet form. In my account of fifteen cases recorded up to that time I had met with uniform success. Is any further evidence essential to demonstrate that there is a limit to the elasticity of the scrotum; or the resiliency of the coats of the veins under favoring circumstances; or a lessening of the enlargement under a decrease of force and shortening of the column of blood of the spermatic vessels?

I have performed the operation fifty nine times. In four instances hydrocele existed as a complication. They have all made radical cures as far as I can learn. I have made more than ordinary efforts to obtain information of the results up to this period. Surely cases operated upon ten or more years ago, showing now no more existence of former varicoceles,

are a refutation of the objection to complete excision of the redundant scrotum for the permanent relief and cure of varicocele.

Written communications from distinguished *confrères* tell me: "I think you have rendered a real service to surgical science by your labors in the direction to which it refers.—WILLIAM A. HAMMOND."

"I have operated very many times, and the operation grows in favor in my estimation. The results are excellent, and always satisfactory to the patients.—R. J. LEVIS."

"I hope you will succeed in impressing the members of the Academy with the superiority of your method of operation. I am satisfied, after having tried various methods, that this one is by far the best.—J. C. HUTCHISON."

"The operation of excision of a portion of the scrotum which practically makes a close suspensory bandage is more nearly radical than the operation of tying, or otherwise attempting to obliterate the veins.—FRANK H. HAMILTON."

I could add largely of extracts from other medical correspondents and patients, affording additional evidence in support of all that I have claimed for the operation I advocate in the treatment of varicocele. Is it necessary?

DELUSIONAL INSANITY; PROBABLY DUE TO JABORANDI.

BY WILLIAM F. WAUGH, M.D.

A CASE recently coming into my hands illustrates the peculiar difficulty occasionally experienced in attending a patient over whom one has not perfect control. The patient, a compositor in the office of an esteemed contemporary, wound up a protracted debauch by getting very completely thrashed; his eyes blacked, head beaten, etc. He was put in good order, told to keep quiet in bed, in a cool and dark room, with low diet; and warned of the dangers of infraction of these directions. He obeyed nicely, except that he went out two days later, got drunker than ever, and a beating that exceeded the first. Erysipelas then set in furiously, with high fever, spreading rapidly from a wound in the scalp that laid bare the skull. Fearing that through this route the disease might penetrate to the brain, as occurred once before, the patient was put upon fluid extract of jaborandi, half drachm doses every two hours. Profuse perspiration ensued, but even larger doses were required to keep the disease in check. The heart's action, however, warranted the exhibition of these doses, and the erysipelas was soon shorn of its strength. But whether as a result of the alcohol (that had been used to an extent justifying a delirium tremens), or from the effects of the jaborandi, as the fever subsided the man became delirious. He believed that his wife had carried him off to the police station, half clothed, and subjected him to such indignities that he could hardly be restrained from flying at her. None of the typical symptoms of alcoholic delirium were present. He drank buttermilk freely for two days, and then ate heartily, without any gastric distress. Hydrobromate of hyosceine and the neutral elixir of opium, given in turn, failed to have any effect on the delirium. The jaborandi was stopped and moderate doses of bromides given; when the delusions gradually subsided.

From my experience in a former case, and from an observation made by a Russian physician, I am of the opinion that the delusional mania was due to the jaborandi; and that such an effect may be looked for

when this drug is given in large doses for some time. Nevertheless, in views of the extreme danger of erysipelas occurring under such circumstances as are described above, I would unhesitatingly push the use of the drug, as a lesser evil.

1725 ARCH STREET, PHILADELPHIA.

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D.

CHAPTER XIII.

BERMUDA.

IT is not my intention to enter into any extended description of this familiar winter resort, because my personal knowledge of it is derived from two visits only, both made several years since. I had hoped that this chapter would have been written by General Hastings, whose long residence in Bermuda, and whose literary attainments furnish an ample equipment for the small task; but an unfortunate attack of grippe prostrated him just when delay in going to press was out of the question, and I must therefore write from such data of my own, and from other sources as are at hand. There is but a single route to Bermuda from the United States, and no need of any other, as long as the comfortable steamers of the Quebec line ply as regularly as at present. The Trinidad and Orinoco are excellent sea boats, safe and staunch. Their officers are experienced seamen, and the passage is short, only fifty-five or sixty hours. I wish that I could speak favorably of the beauty of winter sailing on the North Atlantic, but facts are stubborn, and the average passage is a rough one. Perhaps some of the numerous remedies for sea sickness may alleviate it, but a majority of Bermuda passengers spend a large part of the trip in bed, and vacant seats at table are numerous.

Fares are low, \$50 the round trip; one has choice of two excellent hotels, kept by Americans, at home rates, or may lodge in comfortable quarters in private houses, at from \$10 to \$14 a week.

Society is good, and for those who are fond of aquatic sports, the Bermuda yachts offer continual pleasure. From the entirely equable nature of the climate, one may arrange ahead for any of the small excursions available, and be sure of having fine weather.

To one whose first visit to warm countries in exchange for a northern winter is made to Bermuda, there is always the delightful fascination of leaving behind a nightmare of cold and wet and dire discomfort and coming to cheery sunshine, open air, leaves and flowers that bloom always, serene delight of tepid temperature and the songs of birds that sing every day, and the sense of health which springs afresh each morning that one remains in the enchanted land.

Perhaps one is disappointed, if an old traveler, in the lack of luxuriant tropical vegetation he expected; but when he recalls that he is only hours from New York in place of weeks, there is reason. Coming into port at Hamilton, there are glittering cottages and houses against a sombre background with small elevation, and none of the palm guarded hills of islands farther south; but once the reef is crossed, inner waters assume such varied tints of transparent blue and emerald green, with many tinted coral shining through, and fishes of rainbow hues darting about, that there is no longer doubt of arrival in the tropics, and each sense is busily occupied in enjoyment of the novel picture. Ashore there is a general impression that time is on the free list, every one has so much of

it, and appears to be at a loss what to do with so useless a commodity. Even so small a matter as mooring the steamer to the dock is only accomplished by hours of labor, if any one can be said to labor in Bermuda, and the only real work I saw done there was heavy looking on.

Temperature is comfortable. One is released from fires and winter wraps, except upon rare occasions in morning and evening. But these exceptions are enough to make the rule good that flannels should always be worn next the skin, and woolen outer garments retained. It is better to feel oppressed a little by clothing than by a doctor's bill, and I have seen mornings and evenings in Bermuda when a light overcoat was comfortable.

There are two large hotels, conducted upon the American plan and charging American prices, some twenty boarding-houses where rates are from \$10 to \$25 a week, and a few pleasant rooms with private families, where the average visitor may be especially comfortable without the need for such continuous dressing as is the style at the hotels. For Bermuda is becoming a feeble imitation of Saratoga; and the people one sees on the verandahs of the Hamilton or in fashionable nudity at its balls or dinner parties, are of the same class that crowds the States or Congress Halls in August and makes merry in hours that should be devoted to rest.

The little islands are coming to have an atmosphere of dissipation and fashion about them that is as welcome to hotel managers as it is distasteful to those who seek rest, moderate prices and comfort in their winter resorts, and experiences of the past winter go to show that lovers of nature and nature's quiet must go farther than Bermuda to find what they seek.

But it is no part of our purpose to criticise invidiously; and from the number that went to Bermuda this last season, it is plain that it is becoming popular and will divert a share of American travelers from Florida.

The climate is certainly not warm enough for those who are prescribed heat as a cure—as, for example, in diabetes or albuminuria. There has been a minimum temperature of 50° F. each winter month for several years, and a daily variation of from 11° to 18°. Now, while this is so vast an improvement over the average weather of the United States, North or South, as to be incomprehensible to those who have never been across the Gulf stream in winter, it does not compare with the steadiness of Nassau, where I have passed sixty days with a total daily variation of 6° from a standard of 70° F., or with the Windward Islands, where there is a total yearly variation of 12° from 80° F.

As a sanitarium, then, Bermuda must be ranked below her sister islands farther south; but as a semi-tropical winter resort for the wealthy it may fairly claim first place.

Wheelmen will find perfect roads and small elevations, constant delight in their machines; and one of them just returned told me that the whole island was like a floor and cycling was at its very best. Delightful journeys may be made to the Natural Arch at Tucker's Town, along the north shore to Pulpit Rock or to see the royal palms at Pembroke Hall, meeting cordial welcome everywhere.

There is no better sailing, better skippers, nor better boats anywhere than Bermuda yachts, and for those who enjoy aquatic sports, every day is pleasant. One needs be a bit of a sailor to feel quite safe in such slight boats so strongly sailed, but accidents worse than spray duckings are almost unknown.

It is essentially a military station, and for those who care for soldiers and their evolutions, there is plenty to do. At the barracks there are always two or three regiments, whose officers are pleasant, jolly chaps, ready for any kind of frolic, and whose drills, guard-mounts, etc., are revelations of discipline to American visitors, whose female contingent never tires of watching their manœuvres afield and never fails to capture as many of them as possible to adorn their little dinner parties and dances afterwards. Take it all in all, Hamilton and the rest of Bermuda will scarcely demand a longer notice than this, unless from the pen of some one far more familiar with it than I; and once more I have to regret the illness of General Hastings for my reader's sake.

THE INTERNAL USE OF THE SIMPLE ASTRINGENTS.—Pure astringents are agents which cause contractions of the living tissues, especially the circulatory channels, and have no appreciable effect on the action of the heart.

All, of course, will admit that this definition is correct, and that it represents the effect normally produced by their exhibition. So we will proceed to look a little more closely at their action on the blood-supply and their therapeutics when exhibited internally.

The heart, as we know, under ordinary circumstances and normal conditions, contracts from seventy to eighty times each minute, each contraction completely emptying the ventricles. The capacity of the left ventricle being about five ounces, then in each minute there passes into the aorta and consequently through the whole systemic and pulmonary circulations from 350 to 400 ounces of blood. Now, it is evident that without change either in the frequency of the heart's contractions, or its capacity, the same amount of blood will, of necessity, be forced into the aorta and through the whole body—no matter what may be the size of the aorta or smaller vessels—in the same length of time.

On the administration of a substance which causes general constriction of the vessels without changing the amount of blood forced into them, the intravascular tension must be increased, and consequently the rapidity of the current, proportionate with the constriction. So that any vessel or series of vessels being selected for examination, it will be found that just as much blood passed through them in the same time, as passed through them before such administration.

Hence, in endeavoring to control hemorrhage by the internal administration of the simple astringents, we only contract the vessels from which the blood is flowing, at the expense of causing a proportionate increase of tension, and consequently do not at all affect the rapidity of the loss of blood. There is, of course, a similar objection to the use of these substances in controlling inflammations.

Therefore, do not let us use astringents, given *per oram*, as any aid to the treatment of hæmoptysis, erysipelas, or any other conditions where we desire to cause a decrease of the supply of blood to the part.—W. A. Walker, *Boston Med. and Sur. Journal*.

EXAMINATION OF URINE FOR LIFE INSURANCE.—Dr. Charles W. Purdy, of the Chicago Post-Graduate Medical School Staff, closed a recent lecture with the title above by formulating the following rules:

1. If albumen is found in the urine, do not recommend the applicant for insurance because the quan-

tity of albumen present is small, even though it be mere traces.

2. If albumen is present in the urine and the applicant is over forty years of age, decline the application.

3. If albumen and renal casts are found in the urine, decline the application regardless of the age of the applicant or the quantity of albumen present.

4. If albumen is found in the urine in large amounts—two or more grammes to the litre—decline the application.

5. If the applicant is of middle age or over and has always been a generous eater, especially of meat; and if he rises regularly at night to void considerable quantities of clear urine of low specific gravity; and if, in addition, there is decided tension of his pulse with accentuation of the second sound of the heart, decline the application, even though the urine is free from albumen.

6. If true renal casts are unmistakably present in the urine, either epithelial, granular, fatty, hyaline, or composite, decline the application, even though the urine is free from albumen.

7. If the specific gravity of the urine is normal (1.020) or above, but it contains albumen at times, while at other times it contains none, especially on rising in the morning, and no casts are present in the urine of an applicant who is under thirty years of age and apparently in good health, the albuminuria is doubtless of the so-called functional form, and, in the discretion of the home office, the application may be accepted for a ten years' endowment policy. As yet, however, such risks cannot be considered altogether safe for life policies.

8. If the applicant is subject to frequent or occasional attacks of gravel—one or more of which was recent—the application should be declined.

9. If the applicant has had attacks of gravel and more or less dull pain is present in the renal region, and the urine is more or less turbid from the presence of pus, the application should be declined.

10. If the applicant has had attacks of gravel, but five years have elapsed since the last attack, the urine remaining perfectly normal, and no pain is present in the region of the kidney, the application may be accepted.

11. If the applicant is over fifty years of age and voids his urine with more or less slowness and difficulty at times, the stream being small, forked, or dropping, and at times involuntarily shutting off before the finish, and if he rises regularly at night to void urine and is subject to periodical attacks of frequent urination, the application should be declined, even though the urine itself is in every respect normal.

12. If the urine contains sugar, the application should be declined.

13. If the urine is turbid from admixture with pus or blood, the application should be declined.

—Dixie Doctor.

IN St. Louis, the *Medical Record* tells us, there has occurred a modern miracle. A woman had suffered long from a cerebral abscess, threatening blindness. In a paroxysm of pain she swallowed a relic; and next day a needle came out of her eye with the relic transfixed. The passage of the relic from the stomach to the eye recalls the miraculous birth of Gargantua from his mother's ear.

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THE CITY HOSPITAL EXAMINATIONS.

THE examinations for Resident Physicians at the Philadelphia Hospital deserve more than a passing notice. Whatever may have been the character of these examinations previously, it is certain that for the past two years they have been perfectly impartial; and the verdict has been as nearly accurate as the capacity of the examiners permitted.

While the three colleges for males are each represented on the Board by a member of their staff, no one of these gentlemen has felt or acted as if he were the special advocate of his own school; but has held the interests of all the candidates to be equally confided to his custody. In point of fact, the Woman's College, which is not represented on the Board, has in both examinations been awarded the highest average—an honor fully merited by the excellent scholarship of her representatives.

This year, each member of the Board after making the examination separately, agreed in giving the first place to Mr. Heard and Miss Sherman, and placing Miss Cone next. Throughout the list, the variation between the marks of the three examiners was very slight, except in a few cases; and there the difference was rather in the time given to the examination of the papers, than in the estimate of their value. The labor involved was enormous. Days, and even weeks, were required to analyze, tabulate, and compare the answers given by fifty-seven candidates to the fifteen questions.

The results of this competition differ considerably from those that the same candidates passed through at some of the other city hospitals, where there was simply an oral examination. For instance, one of the five who failed in the Philadelphia Hospital trial, passed first at another hospital, over a number of those who took high places in the former. At another hospital, the Resident selected in preference to some of our best men, failed to pass the final at his college, and was thus rendered ineligible. In a third case, the

candidate who was graded No. 11 by us, won the Residency at another hospital, over some of those who were at the head of our list. In this case, however, the student probably won by his answer upon a subject that had been a special hobby of the examiner from his college, and hence was not touched upon in our examination. From these results we are warranted in claiming that with such students as are sent out from the colleges to-day, justice cannot be done by an oral examination; for it is simply impossible for any man of ordinary intellect to retain in his memory the answers given by a number of persons with sufficient accuracy to compare them.

The questions were as follows:

1. Describe interstitial and desquamative nephritis, and amyloid kidney.
2. Tabulate the forms of intestinal obstruction, with their treatment.
3. Give the causes and treatment of peritonitis.
4. Names and doses of principal cardiac stimulants and sedatives.
5. Give the causes and treatment of endocarditis and pericarditis.
6. Describe the methods of delivering the head in breech presentations.
7. Give symptoms and treatment of gonorrhœal ophthalmia.
8. Give the treatment of post-partum hemorrhage.
9. Treatment of puerperal eclampsia.
10. Tabulate the causes of retarded labor.
11. Give the symptoms of foreign bodies in the air-passages.
12. Treatment of secondary hemorrhage.
13. Diagnosis between suppression and retention of urine.
14. Give a list of necessary appliances in ligation of the femoral artery.
15. Give the treatment of epistaxis.

It will be seen that these questions are quite elementary; and yet they cover a pretty wide range. It was the examiners' intention to select the subjects that would most likely come before the Residents in their official capacity. That there were only five failures out of fifty-seven shows how high was the grade of the candidates. It would be invidious and unjust to these young men and women to pick out the flaws in so creditable a performance. Mistakes as to fact were almost unknown, the grading being made upon the relative merits; and those who obtained low averages erred rather in omitting material facts than in making misstatements. These omissions are, perhaps, to be attributed to the shortness of the time allowed—but three hours for all the questions.

As in the case of last year's examinations, the poorest answers were given upon the simplest question; that relating to the necessities for a surgical operation. Few took the pains to go through the steps of the operation mentally, and scarcely any would have been able to complete it with the articles in their list. There was a very general neglect of anesthetics, and of means for resuscitating the patient in case of accident. Assistants, operating tables, and basins for instruments were generally ignored. To this there were some brilliant exceptions, and one man,

who will be heard from some day, remarked that in an emergency he would ligate the femoral artery with a penknife and a string, if nothing better were attainable.

As these answers may fairly be held to represent the present teaching of the Philadelphia schools, an analysis of two may be of some interest.

To the question relating to the treatment of eclampsia, the following answers were given :

1. As prophylactic, examine the urine during pregnancy, and place patient under treatment before labor begins, 17.

2. Deliver immediately, 22 ; of whom 14 describe the method.

3. If labor has not commenced, induce it at once, 6 ; do not, 1.

4. Wait for dilatation of os before delivering, 8 ; do not wait, 9.

5. Induce labor if there is albuminuria, and convulsive symptoms appear, 5.

6. Remove cause, if found, 4.

7. Rectify mal-position, 1.

8. Protect patient from self injury, 17. Of these 12 mentioned means, such as the gag.

9. Venesection, 30 ; qualified by condition of patient, 17.

10. Arteriotomy, 2.

11. Ice or cold to head, 8.

12. External heat, 34 ; by hot bath, 27 ; blankets, 8 ; bottles, 2.

13. Cause diaphoresis by heat, 22 ; by moisture and blankets, 21 ; vapor bath, 1.

14. Nutrient enemata, 2.

15. Milk diet, 12.

16. Hot drinks, 5.

17. Counter irritation, 1.

18. Cups to back, wet, 1 ; dry, 1.

19. Diuretics, 18.

20. Diaphoretics, 7.

21. Sponging, 1.

22. Croton oil, 29.

23. Chloral, 52 ; as prophylactic, 1.

24. Bromides, 29.

25. Chloroform, 45 ; anesthetics, 3.

26. Ether, 7 ; do not use it, 2.

27. Morphine, 8 ; with care, 1 ; opium, 6.

28. Veratrum viride, 24.

29. Pilocarpine 14 ; do not use it, on account of its tendency to induce pulmonary œdema, 3 ; use with care, 5.

30. Nitrite of amyl, 8 ; nitro-glycerine, 1.

31. Salines, 6 ; concentrated, 8.

32. Citrate potassium, 2.

33. Elaterium, 4.

34. Digitalis, 6.

35. Alcohol, 2.

36. Caffeine, 3.

37. Basham's mixture, 5.

38. Paraldehyde, hypnone, gelsemium, physostigma, calomel, ammonia, viburnum, 1 each.

Here is surely variety enough, and yet we believe that every experienced practitioner will see with sur-

prise that only one has thought of seeking the cause of threatened convulsions in an obstruction to delivery.

To the question as to the treatment of post-partum hemorrhage the following replies were given :

1. Evacuate contents of uterus, 39.

2. Contract uterus, 49 ; by pressure, 16 ; by friction, 39 ; internal manipulation, 8.

3. Intra-uterine tampon, 33 ; of antiseptic gauze, 3 ; iodoform gauze, 21 ; cotton, 3 ; wool, 2 ; linen, 1 ; styptic gauze, 1 ; tampon vagina, 5.

4. Cold externally, 29 ; internally, 38.

5. Hot water douche, 44.

6. Vinegar in womb, 39 ; hot, 3 ; on tampon, 14.

7. Electricity, 24 ; method, 4.

8. Compression of abdominal aorta, 8.

9. Compressing lips of cervix together, and against pubes, 6 ; bending cervix, 3.

10. Depress head, 28.

11. Elevate limbs, 5.

12. Transfusion, 19 ; blood, 9 ; saline solution, 10.

13. Auto-transfusion by bandaging limbs, 20.

14. Credè's method, 8.

15. Laparotomy and ligation of cervix, 1.

16. Alternate heat and cold, 4.

17. Subcutaneous injection of saline solution, 18.

18. Keep up bodily heat, 18.

19. Hot enemata, 12 ; saline, 4 ; milk, 1.

20. Ergot as prophylactic, 17.

21. Binder, 10.

22. Apply child to breast, 3.

23. Antisepsis, 10.

24. Repair laceration, 3.

25. Turpentine enema, 1.

26. Internally : Stimulants, 6 ; alcohol, 16 ; amyl, 3 ; strychnine, 3 ; ammonia, 3 ; digitalis, 5 ; gallic acid, 1 ; ergot, 23 ; oil of erigeron, 1 ; coffee, 13.

27. Hypodermically : Alcohol, 10 ; amyl, 1 ; strychnine, 4 ; ether, 12 ; nitro-glycerine, 1 ; digitalis, 3 ; morphine, 6 ; ammonia, 5.

28. Locally : Lemon juice, 5 ; Monsel's solution, 20 ; tincture of iron, 4 ; tannic acid, 3 ; gallic acid, 3 ; iodine, 3 ; almus, 1 ; oil erigeron, 1.

29. Styptics only to be used as a last resort, on account of sepsis from clot, 19.

It is difficult to believe that any hemorrhage could withstand such a broadside. That less than half should lower the woman's head, only five elevate her legs, and but three apply the child to the breast, shows that the class contained few members who could boast of practical experience. The vigorous denunciations of the vaginal tampon must be out of date nowadays, as five recommended this measure. We will charitably suppose that this was a *lapsus pennæ*, and that the intra-uterine tampon was meant.

CHRISTIAN SCIENCE is not dead, though its principles are as certain as those of the Economites to produce extermination of the race in time. In St. Louis, the daughter of a prominent lawyer is said to have just died of typhoid fever and neglect. She was a beautiful and talented girl, seventeen years old, and a general favorite. Christian science conducted her case to that bourne whence no typhoid case returns,

Annotations.

DR. J. C. Culbertson, who has long guided the destinies of the Cincinnati *Lancet-Clinic*, has accepted the editorial management of the *Journal of the American Association*. Dr. Culbertson is very popular with all who know him, and under his rule the journal will undoubtedly prosper. It is, however, much easier to criticise than to commend, and the new editor will find his position anything but a bed of roses; while Dr. Hollister will now, perhaps, receive some of the credit he has deserved for his good work. The *Lancet-Clinic* will be edited by Drs. Richardson, Oliver and Colter, Mr. H. C. Culbertson retaining charge of the business management.

WE have received the First Annual Report of the Midwifery Dispensary of New York City.

It is one of the greatest faults in the teachings of our medical schools that the medical student is launched into practice with usually little or no instruction in practical obstetrics. The degree of Doctor of Medicine is conferred upon the student without his having, in many cases, ever attended even a normal labor. This state of affairs should be remedied as soon as possible, and an institution like the Midwifery Dispensary is a step in the right direction. Here the student or graduate can, for a prescribed fee, attend cases of labor. He is required to reside at the dispensary, and conform to certain rules. The institution resembles, in essential respects, our Lying-in Charity. The attendance of medical students upon some such school of instruction should be compulsory, and not voluntary, as it is at present.

ONE of the most serious results of the calamity that has fallen on the city and State treasuries, is that there will probably be vetoes plenty of the appropriations for hospitals and other charities. The State will have no money to spare for anything beyond necessities; and when fixed charges are met, there will be few institutions that can be provided for. This is most unfortunate; as there are a number of most worthy objects for State aid. Among these, none are more commendable than the Zoölogical Society. The beautiful garden forms an attractive and instructive resort for thousands of the old and young. The rapid extermination of wild animals renders these collections continually more important. They serve to direct the attention of the young to the study of natural history, and by bringing together the animals of many countries they give children an insight into geography and history such as they never obtain from books. It is by no means the city alone that is interested in this society, although, naturally, city residents have the greatest opportunity to profit by it. We do not know if the society has ever attempted to supplement its work by the organization of county branches, but much good could be thereby done. The principle of "University Extension" could easily be applied here.

"THE evil attributed to condiments," says Juliet Corson, "is more or less a fanciful one. In any case it arises from the abuse of them. Children need but little stimulating matter mingled with their food, a moderate quantity of salt and very little, if any, pepper being all that is required for savor. But

adults can use the many kinds to advantage. As a matter of fact, a great deal of mischief is done by people of a single idea, who disregard all evidence save what they consider the proof of their own senses. If they fancy that pepper injures their little stomachs, straightway all the rest of the world is to foreswear its use."

Miss Corson shows considerable knowledge of human nature, but very little of physiology or therapeutics. Condiments should be regarded as medicines, to be used only as directed by the physician, or some one else who is capable of distinguishing between a temporary benefit and the ultimate disaster to the digestive organs caused by the habitual use of these stimulants. Still, it only makes a difference of, possibly, twenty years of healthy life; and there are very many people whom the world can very well spare at the earlier period. Among those we would unhesitatingly place those who would teach people the indiscriminate use of condiments.

THE seventeenth annual report of the Michigan State Board of Health has been placed before the public. It is to be hoped that these volumes will escape the ultimate fate of public documents, and serve a better purpose than being transformed into scrap-books by the children of bucolic constituents. Dr. Baker gives an illustration of what may be derived from an intelligent study of statistics. For instance, speaking of the relations of "cold weather" diseases to meteorological conditions, he states that when there is more than the average prevalence of pneumonia, diphtheria, tonsillitis, influenza, scarlatina, rheumatism, neuralgia, pleuritis, or consumption, there is also an increase in the average daily range of temperature, relative humidity, cloudiness, ozone, force of wind, barometric range, and atmospheric pressure; while the average daily temperature and absolute humidity were below the average for the year.

In regard to diarrhœa, its prevalence coincided with an increase in the average daily temperature range, average daily temperature, absolute humidity, barometric range, and atmospheric pressure, and a decrease in the relative humidity, cloudiness, ozone, and velocity of wind.

In months when more than the average of reports stated the prevalence of cholera infantum, malarial fevers, typhoid, measles or whooping-cough, the average daily range of temperature, average daily temperature, absolute humidity, barometric range, and average daily atmospheric pressure were greater than the average for the year; while the relative humidity, cloudiness, ozone and velocity of wind were below the average.

The "average disease" is stated to be 24 per cent. This does not imply that that proportion of Michigan's hardy population was reported sick, but that of the twenty-eight diseases upon which reports were made from the various districts of the State, their prevalence was reported in that frequency. From a study of these reports the proposition is deduced, that an increased prevalence of these twenty-eight diseases corresponded with an increase in the daily temperature variation, in the absolute heat and humidity, barometric range, and atmospheric pressure; and a diminution of the relative humidity, cloudiness, ozone and velocity of wind.

The total cost to the State of diphtheria, for ten years, Dr. Baker estimates at \$1,024,920; or \$20 for each case. Of this sum, more than one-half would have been saved by isolation and disinfection alone.

Evidence is given showing that the diphtheria germ was probably active in a house two years after it was last known to have previously prevailed therein. This, however, cannot be cited as an instance of the prolonged viability of the diphtheria germ, unless it is shown that this micro-organism cannot reproduce outside of the animal. The writer has had several instances that go to show that this disease may infect a house for many years, when a suitable nidus is offered for the reproduction of the germs, in deposits of filth supposed to lie undisturbed.

From the foregoing citations some idea may be formed of the great practical value of the work of Dr. Baker and the Michigan State Board of Health.

Letters to the Editor.

THE "PURE WATER" SWINDLE.

A YOUNG and honorable drug clerk in one of our Chicago "drug palaces" was instructed by his employer to sell hydrant water to customers when they asked for certain spring water which the house advertised as on sale. Finally, a customer trapped the druggist into an admission of his "trick of the trade," but the latter publicly and hypocritically reprimanded the clerk. Soon afterward the clerk resigned and applied for a recommendation, which was at first refused on the ground of the clerk having "deceived the public and his employer" in the manner claimed. Thereupon the youngster, who is not backward in asserting his rights, proceeded to damn Mr. Druggist up hill and down dale, for hypocrisy, theft, and so on, stating that all the other employes knew of the instructions to falsify, and reluctantly the recommendation was given.

The "pure water fake" is very profitable in this city as well as elsewhere. Thousands of barrels of most ordinary, and often even unfiltered, water are daily sold to the gullible public at prices ranging from five cents per glass downward.

Specimen bottles containing a dash of common table salt in solution are cheekily sent to physicians, and the labels contain autographic recommendations of medical politicians. Gullibility springs perennial, it merely adopts new directions.

S. V. CLEVENGER.

CHICAGO, ILL.

TREATMENT OF BURNS.—I was called to see Mr. S., who, while preparing to make a blast in a well, upon testing some powder that had lain in a damp place, let ten or twelve pounds ignite, burning his face, hands, and arms severely, his arms being burned to the elbow, a woolen shirt which was rolled up preventing it from burning any higher. Upon arrival, found him suffering great pain and some shock. Gave opiates and brandy, applied thick coating vaseline and boracic acid; covered this with oiled silk. Removed dressing Sunday; found it doing well; dressed again and let remain three weeks. Upon removing it, the epidermis peeled off like a glove, leaving a very tender but otherwise as good hand as it was before.

On August 12, 1890, attended three men who had been severely burned by explosion of powder. Treated very much the same as above. Two of them are practically well, and the other also, as far as the burn is concerned, but he has lung complications which will probably result fatally.—*Ala. Age*.

The Medical Digest.

THIS excellent formula for a sedative lozenge is taken from the list of John Wyeth & Bro. :

R.—Morphinæ bimeconat.....	gr. 10.
Cocain. hydrochlor.	15.
Tinct. aconiti.....	℥.
Rad. althæa rad.....	gr. 2.

M.—Make one troche.

A WARNING ABOUT THE FORCEPS.—In a recent clinical lecture Dr. Goodell said to his class: "Let me warn you, as young men, to resist the temptation of keeping the forceps on too long, in your undue haste or excitement to deliver the woman. Make it your rule always to take them off when the head is well down and the perineum begins to bulge, unless the pains have stopped, or the woman is in puerperal convulsions, or she is in any condition demanding prompt delivery. By observing this precept you will at least avoid the accusation that 'the doctor tore her with his instruments;' for indeed it is too true that the physician, in his haste to deliver, does often tear his patient either by a too hasty delivery or by pulling parallel with the long axis of the woman's body, instead of following the curve of the Carus."—*Practice*.

ALVEOLAR ABSCESS.—To relieve the pain that accompanies the formation of an alveola abscess I was led by theoretical reasons to the use of secale cornutum in a few cases with prompt and marked relief resulting. Its physiological action is to contract the arterioles at the painful point, thus lessening the hyperemia pus formation and suffering. This neuralgia is a congestive one and the drug antagonizes that condition. The contra-indications for its use would be during menstruation, pregnancy, kidney, or heart disease, or cerebral anæmia. When these are absent, the safety of the medicine as compared to the alkaloids in general use for toothache especially, recommend ergot. Squibb's fluid extract should be used, 10 drops every ten minutes, until relieved, which should occur before six doses are taken.

—S. V. Clevenger.

MYDRIATICS AFTER CATARACT OPERATIONS.—A well known Mexican oculist believes that the use of mydriatics after cataract operations tends to favor the formation of secondary cataracts. This action of eserine suggested the idea of employing it to prevent hernia of the iris after a cataract operation. He believes that if the work is well done, the corneal incision well cleaned, and the lips of the wound nicely adapted, that the instillation of eserine is useless, but if the patient should vomit, then eserine is useful, and he sometimes uses it.

The change after operation causes an exaggerated contradiction of the pupillary sphincter, and greatly favors the adhesions of the iris with capsular fragments and exudative deposits that may form afterward. For these reasons he has abandoned the use of the mydriatics after cataract operations, except in cases in which they are especially indicated.

When capsular cataract forms, notwithstanding the perfectness of the operation, he believes that it is best treated by simple decision, as is practised by Galezowski. The operation is simple, easy, and nearly always gives excellent results.

—*Memphis Med. Jour.*

RULES FOR PERSONAL DISINFECTION OF THE ACCOUCHEUR.—At the University of Pennsylvania every student who attends a case of labor in the Maternity Pavilion is required to roll up coat and shirt sleeves, scrub arms, wrists, and hands with nail-brush, soap, and warm water.

Put on disinfected gown, tying sleeves below coat sleeve.

Pare and clean finger nails; rinse hands and wrists in alcohol.

Immerse hands and wrists in a 1-1,000 bichloride of mercury solution for at least one minute.

The hands are not to be dried on a towel, but may be wiped on front of gown.

After labor a record is made of the infant's condition, and of the appearance presented by the foetal appendages. During convalescence notes are taken on the progress of mother and infant.—*Practice.*

NEVER send a patient to sea who is compelled to live on a limited diet, unless he can take the requisite food along with him, a ship being the poorest place in the world where to obtain any special article of diet. More ground will be lost by patients under such circumstances in one week than can possibly be regained in many months following, on shore, even under the most favorable conditions. There cannot be the slightest doubt in the world that a sea-voyage may be, and is, beneficial in a great majority of chronic cases, but it should be a voyage chosen for its especial adaptability to the case in question, and the climate, class of steamers, food, etc., should have the careful consideration of the family physician before he sends his patient on a month's voyage by water, for a lack of information on the physician's part may mean improvement to the patient, and may mean death, whereas positive knowledge would insure improvement.—*Sanitarian.*

THE formulas for Goddard's astringent gargle are published in the *American Journal Pharmacy* as follows:

Fol. rosæ rub.	2 drams.
Aquæ bullientis.	5 ounces.
Acidi sulphurici diluti.	½ dram.

Infuse, when cold, strain and add:

Mel. despumati	1 ounce.
Acidi tannici.	2 scruples.
Aluminis.	2 drams.
Spts. vini rectif.	
Aquæ rosæ	āā 6 drams.

Mix.

The other formula contains pomegranate rind in place of tannin, but this is preferable.

Take of—

Red rose petals.	2 drams.
Pomegranate rind.	4 drams.
Boiling Water.	6 ounces.

Infuse, strain and add:

Alum.	2 drams.
Clarified honey.	1 ounce.

Mix. Filter.

THE EXAMINATION OF THE BLOOD FOR LAVERAN'S MALARIAL GERM.—Laveran's directions for examining the blood of malarious patients are as follows: The blood should be taken at the height of a fever attack, and from a patient who has had no quinine for some time. The blood should be taken from a

finger tip after a thorough cleansing of the skin to be pierced. The cleansing should be such as to prevent all chance of contamination of the blood as it oozes out. The drop so obtained is to be taken up on a clean cover-glass, and a second cover placed upon it, so that a thin layer of blood may be obtained between two cover-glasses. This fresh preparation is then to be examined by daylight and with a dry lens of high power. In this way one will oftenest be able to see the flagella on the periphery of the round pigmented free corpuscles. If a dry preparation be desired, then the cover-glasses must be separated from one another, and the blood dried by passing the cover-glass three times through a flame. The specimen can then be examined either unstained or stained. Laveran stains with a concentrated watery solution of methyl blue, before using which, he washes the cover in a mixture of equal parts of alcohol and ether. By this method the neuclei of the white blood corpuscles are stained dark blue, the free round bodies, or those attached to the red blood corpuscles, a pale blue, while the still growing corpuscles stain hardly at all. For specimens so prepared, Laveran recommends dry lenses also.—*Canada Practitioner.*

LIEBREICH'S REMEDY FOR TUBERCULOSIS.—There evidently exists a decided antagonism between the pneumococcus and the bacillus tuberculosis. It is considered an established fact that certain species of bacteria are antagonistic to other species of germs. According to my own idea, such an antagonism can be of a twofold character: it may be either chemical or dynamical. Some bacteria are antagonistic to each other outside of the animal organism on account of their metabolism products, whereas other bacteria prevent the growth and multiplication of other species only within the human or animal organism. This latter phenomenon I call "dynamic antagonism of bacteria" in distinction to the chemical antagonism, which exists outside the body and depends on the ptomaines and other products of metabolism. Applying this to our subject proper, we may say that the pneumococcus and the bacillus tuberculosis are dynamic antagonists. Which is the chief dynamical characteristic of a pneumococcus invasion of the lungs? Is it not the transudation of blood-serum from the pulmonary capillaries? Therefore, if we can find some mineral, vegetable, or animal substance which is capable of producing a transudation of serum from the lung capillaries, such a substance could be considered a dynamical substitute of the pneumococcus.

I think, Liebreich has found such a substance in cantharidin, and has, therefore, given us the theoretically ideal remedy for pulmonary consumption. The practical results so far obtained with this therapeutical agent seem to confirm its theoretical importance. It is strongly to be wished that those of our physicians who have ample opportunity to carry out the clinical experiments with respect to the therapeutic effects of cantharidin, should do so without delay. Its use—as compared to Koch's "lymph"—is harmless.

The solution for injection is prepared in the following manner:

Take 0.20 gramme of cantharidin and 0.40 gramme of hydrate of potassium, or 0.30 gramme of hydrate of sodium. Weigh exactly, and add 20 ccm. of distilled water. Warm in a warm bath until a clear solution is obtained. While the warmth is obtained, add gradually distilled water until the solution becomes cold, then add cold distilled water until the whole amounts to exactly one liter.

One cubic centimeter of this solution contains 0.0002 gramme of cantharidin. The normal dose for injection is 0.0001 or 0.0002 gramme, but it is probably better to commence with $\frac{1}{2}$ decimilligramme, *i. e.* $\frac{1}{4}$ of a cubic centimeter of the solution. The maximum dose is 0.0004 gramme. The injections should not be made daily, but alternately on every other day. Renal disease is a contra-indication to this treatment. If an injection is followed by diarrhoea, strangury, or albuminuria, the injections have to be interrupted for some time; from five to ten drops of tincture of opium will promptly allay such symptoms. The most suitable place for injection is between the two shoulder-blades. In injecting, the ordinary rules and precautions are to be observed.—Moore, *Med. Record*.

NICOTINE PSYCHOSIS.—Dr. Kjellberg, of Upsal, has availed himself of his opportunities to study the process of intoxication by nicotine as witnessed in the factory men, who consume large quantities of chewing tobacco. He describes a peculiar and progressive intoxication characterized by a special form of mental aberration, which ultimately takes a suicidal turn. During the preliminary stage, which lasts from six weeks to three months, the sufferer becomes anxious and melancholy, and complains of distressing attacks of cardiac palpitation. The malady announces its onset by hallucinations of sight and hearing, the patient is prostrate and seeks quiet in order to brood over imaginary woes. The intelligence, however, remains intact. In the second period the patient becomes gay, and his quasi-delirium resembles that of general paralysis, but he is subject to periodical attacks of maniacal violence, remaining stupid and dazed in the intervals. Ultimately, the paroxysms give way to a condition of physical depression which contrasts strongly with the relative preservation of physical energy. At this stage a complete return to health is no longer possible. The author states that the chewing of powdered tobacco is far more virulent than that of the traditional "pig-tail."—*Med. Press*.

AN UNUSUAL SYMPTOM IN MIDDLE EAR DISEASE.—That sound caused by air entering the middle ear on inflation can usually only be heard by means of the diagnostic tube, induces me to put the following case on record. Grüber says, speaking on this point, "for the more distinct perception of which (sound) the otoscopic tube is employed." Politzer, "which (sound) can be perceived either by placing the auricle immediately to the concha of the person," and also "this blowing sound has various degrees of strength and distinctness."

The patient, a young lady of twenty-one, was under treatment with middle ear catarrh due to Eustachian obstruction; air would not enter the cavities of the tympani either by Valsalva's or Politzer's method, and could only be driven in through a very fine catheter; the finest Eustachian bougie failed to enter the tube at all. Hearing (watch) left normal, and right four inches; after inflation eighteen inches. On February 20, 1891, I examined the nasopharynx under ether, and, finding some adenoids, they were removed with Daly's scraper, and a week afterwards the nose was irrigated with an alkaline solution. After this had been employed daily for some days, my patient informed me, that when she blew her nose her left ear made a noise which her sister heard "across the room." I examined the ear, and found the drum apparently normal; the hearing of the right ear was now five feet. On April 6, I was sent for

and told the noise was again present. On my arrival the patient used her saline solution and inflated her tympanum. I then heard the sound, and though I stood twenty feet away, I still heard it distinctly. It resembled the sudden inflation of a small bladder. Testing the Eustachian tubes, a large-sized bougie entered freely.—Lake, *Lancet*.

TREATMENT OF SOME FORMS OF CORNEAL OPACITIES BY RUBBING.—The methods of treating corneal opacities are numerous, all having the same aim, that is, of mechanically removing or thinning the opaque cornea. None of these methods, however, can be regarded as satisfactory, and if any improvement be effected by their use, it is usually slow in coming, and a patient with an otherwise sound eye has difficulty in getting good vision, owing to a small blot in the way.

On reading Costomiris' attempt to revive the treatment of affections of the cornea, particularly opacities, by licking, it occurred to me that as few could be induced to undertake such a task, an artificial tongue, in the shape of an ordinary India rubber pencil eraser, might serve the same purpose. I accordingly adopted the following method:

Having first anæsthetized the eye with cocaine, I gently rubbed the opaque portion of the cornea with the rounded end of a rubber eraser for about half a minute or less. No pressure was used; the weight of the rubber itself gave sufficient pressure for the purpose. This "rubbing" was repeated every second day for a considerable period with satisfactory results, as will be seen below.

The first case in which the treatment was tried was that of M. McK., aged twenty four years. Has had central nebulae in both eyes "for years." March 11, r. v. = $\frac{3}{8}$, l. v. = $\frac{6}{8}$ partly. Both eyes subjected to the treatment. March 18, r. v. = $\frac{6}{8}$, l. v. = $\frac{6}{8}$. March 25, r. v. = $\frac{6}{8}$, l. v. = $\frac{6}{8}$ partly. April 1, r. v. = $\frac{6}{8}$, l. v. = $\frac{6}{8}$ barely. June 2, r. v. = $\frac{6}{8}$, l. v. = $\frac{6}{8}$. Treatment was then stopped. On seeing the patient six weeks after, she still retained the same improved vision.

The next case was that of M. R., aged ten years. Has a large nebula in right eye, and a central nebula in the left eye. Treatment commenced on March 24, r. v. = fingers at seven feet, l. v. = $\frac{6}{8}$. April 3, r. v. = fingers at seven feet, l. v. = $\frac{6}{8}$. April 6, r. v. = fingers at seven feet, l. v. = $\frac{6}{8}$ partly. April 25, r. v. = $\frac{6}{8}$ dimly, l. v. = $\frac{6}{8}$ barely. May 10, r. v. = $\frac{6}{8}$, l. v. = $\frac{6}{8}$. Treatment then ceased. Neither of the two patients attended regularly. A third made similar improvement. A fourth showed no improvement; but this was subsequently found to be due to a diseased fundus.

I would recommend this method of treatment as suitable for cases in which small central nebulae interfere with vision. It might, however, be tried in cases where larger portions of the cornea are affected, but great improvement in vision cannot be expected in such cases. The opaque spot should be gently stroked or rubbed with the least pressure possible. Vigorous rubbing will only irritate the eye unnecessarily. A drop of a weak solution of atropine might, with advantage, be instilled into the eye after each application of the rubber.

It might, perhaps, appear premature on my part to bring to notice the results of a few cases only, but as suitable material has been slow in coming, I thought that possibly those who have large clinics might like to try this novel treatment.

—Ferdinands, *Brit. Med. Jour.*

ALLINGHAM'S OINTMENT FOR HEMORRHOIDS:

R.—Bismuth subnit.	3j.
Hydrarg. subchlorid.	3ij.
Morphine.	grs. iij.
Glycerini.	3ij.
Vaselini.	3j.

M.—Sig. Use in pile-pipe.

HOT COLON DOUCHES FOR PELVIC PAIN.—The patient is to lie on the left side, with left arm behind the back, legs partly drawn up, hips on a pillow or folded blanket, the chest low; in short, in the Sims position. This position allows the patient to administer the injection by the use of the right hand. It is always better, however, to have an attendant administer the injection if possible. If an attendant gives it, the patient might better lie directly on the face with a folded blanket or pillow under the thighs. The water is to be of a temperature not more than 112° F. nor less than 106° F. From a pint to two quarts of the hot liquid should be slowly injected, and retained for a few minutes. If there are fæces in the rectum, as is usually the case, the injection and the fæces will be quickly ejected. Then at once have the patient lie down and repeat the hot injection, using a larger quantity the second time. This will be retained longer and will almost certainly relieve the pain. When this is expelled the patient should lie down again, and about a pint of hot water should be injected; this will be retained if the patient lies quiet, and it will be discharged from the system through the kidneys. If the patient is at all weak, it is wise to administer a stimulant before giving the injection.—*Forest, Med. Record.*

EPIDEMIOLOGY OF INFLUENZA.—*The British Medical Journal* says that in spite of considerable increase in our knowledge of the behavior of epidemic influenza gathered during the past year, much still remains very mysterious. It is, however, certain that one attack does not protect from a second, as already many persons who suffered during the last epidemic have suffered again now. A curious point, however, is that the disease, it appears, tends to recur at long intervals, each recurrence consisting of two, or sometimes three, epidemics. We find, on referring to Dr. Symes Thompson's historical survey in his edition of his father's work on Influenza, that an epidemic occurred in 1510, and again in 1557 and 1580. A long interval then elapsed without reliable records until 1658, 1675, and 1710. A series then occurred—1732-3-7-8-43—during which the disease was scarcely absent for more than three or four consecutive years. After an interval of fifteen years came the epidemics of 1758-62-67-75-82. Twenty years then passed till the 1803 epidemic; then, after an interval of twenty-eight years, that of 1831. As in the preceding century, the "thirties" proved fertile, for 1831-33, and 1837 were all years of marked epidemic prevalence. Ten years later came the 1847 epidemic, which Dr. Peacock described so accurately; then, after an interval of forty-two years, that of 1889-90, to be followed this year by further epidemic prevalence.

PETROLEUM IN CONJUNCTIVITIS.—At the recent meeting of the French Society of Ophthalmology, in Paris (May 4 to 7), M. Trousseau, of Paris, gave an account of the results he had obtained with petroleum in the treatment of conjunctivitis (*Semaine Médicale*, May 6, 1891). He had for two years sought for a substitute for nitrate of silver and sulphate of copper, both of which caused violent reaction and

acute pain. Among the substances tried, petroleum seemed to him the most satisfactory. It was less active than nitrate of silver and sulphate of copper, but had the advantage of causing neither pain nor reaction, and it was perfectly well borne by the most sensitive cornea. He used crude Caucasian petroleum; its derivatives were less active and sometimes more irritating. It should be painted over the conjunctival surface of the eyelids and the *cul-de-sac* with a soft brush. The applications should be prolonged, and their thoroughness should be proportionate to the condition of the mucous membrane; they should be repeated two or three times a day. In cases of granular conjunctivitis, M. Trousseau said he had had good results from thoroughly brushing the mucous membrane with a toothbrush saturated with petroleum. In cases of catarrhal conjunctivitis, applications made twice daily quickly dry the mucous membrane, which soon recovers its natural appearance. In muco-purulent conjunctivitis the effect is not so rapid, and the treatment sometimes fails. In follicular conjunctivitis, and in cases of purulent conjunctivitis when the inflammation is on the decline, petroleum acts extremely well. In granular conjunctivitis the effect of petroleum is variable, but not more so than that of the ordinary remedies; in these cases petroleum may be advantageously used as a preliminary to other treatment. Trousseau recommends the drug particularly for children and "pusillanimous subjects," on account of its causing no pain. He added that experiments made by M. Dubief had shown that petroleum has antiseptic properties of moderate intensity.—*Brit. Med. Jour.*

CHLORALAMIDE.—The following summary embodies the results of the observations detailed in this contribution to the study of chloralamide:—

1. The reflex irritability of the spinal cord was diminished.
2. Peripheral sensation was not reduced.
3. On frogs there were hypnotic action, slowed respiratory and cardiac actions, abolition of reflexes, and subsequent recovery of the normal condition.
4. Blood pressure was slowly reduced with large doses.
5. Pulse rate was not affected.
6. Respirations were reduced and finally abolished.
7. The conductivity of motor nerves was destroyed, and was not restored by subsequent washing in salt solution.
8. The irritability of muscle substance was destroyed, and was not restored by subsequent washing in salt solution.
9. The excretion of urea was increased by small doses—0.3 to 0.6 gramme—but was diminished by large doses—2 to 3 grammes.
10. The excretion of phosphates was diminished with both large and small doses.
11. The excretion of the fluid constituents of the urine was not constantly affected by the smaller doses, but was diminished by the larger doses.
12. Reaction of urine was not influenced.
13. Color and odor of urine were not affected.
14. No albumen was detected.
15. Action on the skin was negative.
16. Temperature was not affected.
17. Digestion did not appear to be interfered with.
18. Hypnotic action in the healthy was induced with doses of 1.25 grammes and upwards.
19. In painless insomnia the results were highly reliable.

20. In insomnia with moderate pain the results were fairly reliable.
21. In insomnia with acute pain it was not reliable.
22. The analgesic action was feeble.
23. The hypnotic effect followed usually within half an hour after exhibition.
24. The sleep induced was tranquil, pleasant and natural, and the awakening free from confusion or depression.
25. No deferred action.
26. No craving for the drug was noticed.
27. The point of tolerance was not readily reached.
28. The doses found most reliable were from 2 to 3 grammes.
29. Giddiness and inco-ordination and headache sometimes followed administration.
30. In senile insomnia, pulmonary diseases, and hysteria the results were highly satisfactory.

—Gordon, *Brit. Med. Jour.*

RETURN OF MENSTRUATION AFTER THE MENOPAUSE.—I have probably met with half a dozen cases in my experience where I have been brought into very disagreeable conflict with physicians, in consequence of the diagnosis of which I am about to tell you, in a peculiar class of cases. Let me suppose you a case: A patient, say of sixty or seventy years of age, it matters not whether she be a married woman, a widow or an unmarried woman; she has been free from anything like menstruation for ten years or more, and she suddenly has a return of her menstrual flow. Now, never believe in a return of the menstrual period after the full accomplishment of the menopause. You may find a woman stop menstruating before she is fifty for two or three years, and then begin again. This is of very rare occurrence; but that it does occur, is, nevertheless, a fact. Now, after she has passed fifty years of age, and has ceased menstruating, and again begins to pass blood from the vagina, examine that woman and, in ninety cases out of a hundred, you will find malignant disease somewhere in the genital tract as the cause of the flow. The woman whose case I was supposing has been ten years without menstruating; she comes to her physician and tells him of the recurrence of hemorrhage. He is one of those men who trust not to appearances, but who examine their patients physically. He makes a diagnosis of cancer, and he bases his treatment on that diagnosis. The woman may have nothing simulating cancer in its pathology at all; she may have a hemorrhagic vaginitis. The red corpuscles and the watery portions of the blood are poured out of the walls of this old, used-up vagina, and when you make an examination you find the upper two-thirds of the canal as red as blood. As you take a sponge and pass it over the surface, you will find that the vagina is affected by a true bloody sweat. You know that the bloody sweat spoken of in the Bible is a reality. I have seen two or three cases where a bloody sweat exuded from the surface of the body. In hemorrhagic vaginitis, the red mucous membrane seems to sweat blood. Treat this condition by separating one wall of the vagina from the other constantly by means of a glass vaginal plug, making alterative applications to the parts; at times plug the vagina with iodoform gauze, and put the patient upon general tonics for the restoration of her blood state, and you will cure this supposed cancer in two or three months, and relieve thereby your patient from the prospect of an absolutely certain death.—T. G. Thomas, *Annals Gynecology*.

TWO CASES OF RESECTION OF INTESTINE BY SENN'S METHOD.—Mr. Arbuhnot Lane read accounts of two cases in which he had removed portions of the bowel and restored the continuity of the intestine by Senn's method of approximation plates. The first was a case of Littré's hernia, occurring in a woman aged fifty-three years. It was femoral, and situated on the right side. On exposing the sac it was found to be much inflamed, its contents stinking and pultaceous, and the knuckle of bowel in an obviously irrecoverable condition. Having thoroughly cleaned the bowel and sac, the abdomen was opened in the middle line, and the loop of intestine, whose segment had been strangulated, was drawn out from the abdomen, the constriction of the femoral ring having been previously divided. It was then seen that only a portion of the caliber of the bowel had been included in the sac, and that its condition was irrecoverable. Subsequent examination of the strangulated portion showed that, though there was no obvious perforation, nothing remained in many parts of its wall but the peritoneal coat. About three inches of the bowel, including the strangulated area, were excised, and the mesentery belonging to it ligatured. The divided ends of the proximal and distal segments of the intestine were closed by inverting their coats and by running along them a continuous Lembert suture. Incisions were made in the convexities of the segments, about three inches from their closed ends, and into these Senn's plates were introduced. The apertures were then brought accurately together by means of the silk ligatures. After this, two continuous Lembert sutures were applied to render the apposition of the plates more perfect, and a broad graft of omentum was placed around and fixed by means of several fine silk sutures. For a few days the patient was nourished by enemata, and later by peptonized milk. Twelve days after the operation she was enjoying a fish dinner. She experienced no pain or discomfort worth mentioning, and her abdomen remained soft and comfortable throughout. It was necessary to give her some opium for a few days after the operation, to restrain a tendency to diarrhoea. She left the hospital three weeks and four days after the operation.

The second case was a woman, aged fifty-five years, who had suffered from a strangulated femoral hernia for five days before her admission. She was very collapsed, and her abdomen was much distended. It was at once apparent that she would not stand any very prolonged operation. The sac was much inflamed, and contained a quantity of pus and faeces, and a perforated loop of small intestine. This was ligatured and carefully cleansed, the constriction being then divided. The abdomen was opened, and the damaged loop drawn out. About four inches of bowel were excised, the ends closed, and the plates inserted. It was then found that the proximal gut was very rotten, and the sutures attached to the plates tore through the softened bowel frequently. Finally, the plates were brought together in much haste, as the patient had become moribund, and a graft of omentum was attached. Mr. Lane regretted very much that he had not time to remove a further portion of the proximal bowel, but the patient's condition rendered any further delay impossible. She lived five days and two hours, the bowel yielding two hours before her death, which resulted from the escape of the intestinal contents into the peritoneal cavity through a small slough in the proximal bowel. Mr. Lane urged that the following treatment should be adopted in the future:

1. That in cases where a strangulated loop of intestine was gangrenous or ulcerated, the proximal and distal portions of the intestines should be short-circuited by means of Senn's plates, the proximal portion being at the same time relieved of much of its contents. If the condition of the patient were such as to permit of further operative interference, and provided the adhesion of the intestine to the neck of the sac and its vicinity were not too extensive, the damaged loop should be resected at the same time, otherwise it should only be incised and freely drained.

2. That as a very large proportion of cases of strangulated hernia died from obstruction after herniotomy, owing to the strangulated loop not recovering itself sufficiently to allow of the passage of the contents of the bowel through it, in any case in which the condition of the strangulated bowel aroused suspicion in the mind of the operator as to the possibility of its not recovering, the abdomen should be opened in the middle line, and the condition of the damaged intestine, as to its transmissibility, fully explored. That if there were any doubt about it, the intestine should be short-circuited, and if the condition of the damaged loop were such as to suggest ulceration and subsequent perforation, it should be excised also.

He considered the present mortality after herniotomy a disgrace to the surgery of the present day, and only to be obviated by the more efficient and thorough treatment than that at present adopted.

—*Brit. Med. Jour.*

PAGET'S DISEASE OF THE NIPPLE.—At the Royal Medical and Chirurgical Society, Anthony A. Bowlby gave a short account of thirteen cases of Paget's disease of the nipple, and, after a brief review of cases already recorded, analyzed those described by himself. A more complete description of the special clinical characters of the disease, as demonstrated by the cases detailed, was then given. The histology of the morbid tissues was then described, and the observations of MM. Wickham and Darier, as to the presence of bodies resembling psorosperms, were commented on. The author remarked that bodies of the same nature as those described by the French observers were to be found in all the cases which formed the subject of the paper, and expressed the opinion that these bodies were probably psorosperms. The pathology of Paget's disease was then discussed; and after giving reasons for believing that all changes in the breast were secondary to those in the nipple, and were not in any way causative of the so called eczema, the author expressed the opinion that the disease was parasitic in its origin. He next discussed the influence of the psorosperms in causing cancer. He concluded by expressing the opinion that there was no evidence that the cancerous growths in the cases under consideration were directly due to any specific action of the psorosperms, and gave various reasons for such a conclusion.

On Paget's Disease of the Breast.—Mr. J. Hutchinson, Jr., reported the results of examination of five cases of chronic eczema of the breast, with reference to the occurrence of parasitic bodies in that disease (coccidia or psorosperms). Specimens were shown illustrating various appearances in the surface epithelium, which the writer believed confirmed M. Darier's statement that coccidia were to be found, and sometimes in great numbers. These appearances had not been found in cases of eczema other than the chronic disease known as Paget's disease; neither were they

found in all supposed examples of the latter. The writer had observed them in three out of the five cases examined. Brief reports of each were given, and the subject was illustrated by lantern demonstrations of micro-photographs, etc.

Mr. D'Arcy Power said that he had been experimenting on the origin of cancer by means of inoculations, and he had inoculated a rat with fresh scrapings taken from Mr. Morratt Baker's case of Paget's disease mentioned by Mr. Bowlby in his paper. For six days nothing occurred, then a puriform discharge containing epithelial cells and some of these coccidia or coccidia-like structures. The discharge ceased for a time, but reappeared after four days, again disappeared and reappeared four days later, and then the rat got quite well again. Since then he had reinjected it with coccidia from a rabbit's liver, and again produced the puriform discharge. This was the only instance in which he had obtained any result whatever from inoculation with cancerous material of any sort, though he had made a large number of experiments.

Dr. Thin traced the history of our knowledge of this disease from Sir James Paget's original paper, in which he had shown that there was some connection between an inflammatory condition of the nipple with subsequent tumor formation in the breast. His own paper which Mr. Bowlby had referred to followed next, and shortly afterwards Mr. Butlin's paper, in which he described the inflammatory process as passing down the ducts to the tumor. In this paper Mr. Butlin called the disease of the nipple "eczema." Not long afterwards Dr. Thin read a paper to show that the nipple disease was something totally different from eczema, and he thought it a pity that the term eczema should still be retained for this condition. He had recently examined a case of this disease for coccidia unsuccessfully, but he had found an immense number of these bodies in some of his old preparations. He thought, however, that they were nothing else than epithelial cells in various stages of degeneration, and he had seen exactly similar appearances in epithelial cells from a cancer of the lip, and these appearances had been published in his paper in the *British Medical Journal* in 1881. The peculiar disease caused by the secretion preceded the tumor formation, and was no known skin disease.

Mr. Jonathan Hutchinson, Jr., in reply, said that the great difficulty was to determine whether the bodies seen were coccidia or altered epithelial cells. He suggested that scrapings should be taken from a future case, and watched upon a warm stage under the microscope to see if there were any signs of movement in these bodies, as, if so, it would go far to show that they really were coccidia. The fact that those in the scrapings from nipples did not take Neelsen's stain might be due to the fact that they belonged to a different species, of which many were known to exist.—*British Med. Jour.*

THE DIFFERENTIAL DIAGNOSIS AND PROGNOSIS OF TINNIUS AURIUM (NOISES IN THE HEAD AND EARS).

—*Class I.*—Impulses originating in the temporal lobe, or superior temporal gyrus, the cerebellum, or the auditory nuclei (in the medulla or pons), and referred as impressions to various situations, as the labyrinth or certain parts of the head. Such acoustic impressions may or may not be attended by deafness. These impulses may be associated with lesions in these areas—as tumors, apoplexies, effusions, thrombi, or possibly lesions in the adjacent portions of the occipital

or parietal lobes. Such impulses may result also from reflected irritations of any of these parts.

Class 2.—Impulses due to irritation direct or reflected in any portion of the auditory nerve. This latter would include hyperæsthesia, atrophy, sclerosis, traumatism, vaso-motor (dilator or constrictor) effects, morbid blood-supply to the nerve, as in uræmia, anæmia, or the circulatory changes which occur during pregnancy. These latter causes may also operate under Class 1.

Class 3.—Impulses originating in the peripheral ends of the auditory nerve, due to: (a) Increase or diminution of labyrinthine pressure, increase or diminution of, or encroachment upon, the perilymph or endolymph from abnormal pressure on either of the fenestræ. This latter cause would include rigidity of the membrane of the round opening and fixation of the stapes against the oval opening. (b) Vascular changes—increase or diminution of blood-pressure, frequently associated with cardiac disease—hyperæmic, anæmic, or toxæmic states of the blood circulating in the labyrinth; apoplexy and extravasations. (c) Morbid nerve conditions—hyperæsthesia, paresis (organic or functional), atrophy, sclerosis, traumatisms. (d) Rheumatic, gouty, or syphilitic states of the walls and vessels of the labyrinth. (e) Reflected disturbance through the spinal cord or cerebro-spinal nerves, as occurs in uterine disorders, pregnancy, gastric derangements, gout, disorders of the liver, flatulence, spinal neuroses, dental, nasal, and ocular irritations involving the fifth and facial nerves.

Class 4.—Irritations arising from interferences with the intra-tympanic muscles—tensor tympani and stapedius. Such interferences would include any spasm of these muscles—abnormal changes in the membrana tympani or the mucous membrane of tympanum—reflex irritation transmitted from the facial or trigeminal nerves.

Class 5.—Irritations transmitted by altered conditions of equilibration of the air in the tympanic cavity. This would include enervation of the tubal muscles of the Eustachian tube, and altered relations between the air in the tympanic cavity and the blood in its vessels or those of its membrane; also pathological states of the membrane.

Class 6.—Irritations due to disease in the middle ear and labyrinth. This would embrace atheromatous changes in the arteries, aneurysmal dilatations, blood extravasations, venous congestion within the lateral sinuses, disease of the mastoid cells, and disease of the petrous portion of the temporal bone, exudations and tumors.

Class 7.—Irritations arising in the external ear, including inflammation and abscess, ceruminous collections, eczematous inflammation, exostosis and hyperostosis, othæmatoma, foreign bodies. Some of these causes act by direct irritation of the nerves supplying the external auditory meatus or tympanic membrane, as in inflammatory attacks and exostosis, others, as cerumen or foreign bodies, by the influence they exert on the sound waves, or by the pressure due to their presence on the membrana tympani, and thus conveyed to the ossicles and labyrinth.

Class 8.—True aural hallucinations—subjective impressions arising in the psycho-sensorial brain centers and having no objective cerebral or aural source of origin. Such hallucinations may become insane hallucinations. The latter may be divided into two distinct forms. (a) Hallucinations which arise subjectively in the brain when the aural apparatus and auditory nerves are healthy. (b) Hallucinations which are secondary to objective changes in the

aural apparatus and in which a tinnitus is developed that leads up gradually to a fixed illusion.

Class 9.—Therapeutical causes of tinnitus aurium. The action of such drugs as ergot, nitro-glycerine, alcohol, ether, quinine, salicine, caffeine, apomorphine, nitrite of amyl, tobacco, iodine, iodoform, chloride of barium, digitalis, convallaria, atropin, veratrin, duboisin, gelsemin, jaborandi, pilocarpine, monobromide of camphor, hydrobromic acid. Some of these drugs may act by direct stimulation of the auditory nuclei in the medulla, as caffeine, gelsemin, iodoform, salicine, and quinine; others, as digitalis, jaborandi, nitrite of amyl, chloral hydrate, by their action on the vaso-motor center; others, as quinine and digitalis, convallaria, by their secondary effects on the auditory circulation through their action on the heart.

I desire to supplement this classification by adding a few observations on a differential diagnosis on the lines above laid down. It is difficult in many cases to do this accurately and with confidence, but in a very large number of patients we can come sufficiently near the reference of the individual case before us to a special class, or it may be the borderland of two distinct classes of tinnitus, to enable us to give a correct prognosis of the chances for or against recovery, and to indicate the correct line of treatment to be pursued. To return to the etiological classification I have tentatively laid down, we may summarize the clinical evidence on which, after a careful examination, we are enabled to include a particular case under any of these heads.

Class 1.—Most of those who would come under this class are likely to have some evidence of the implication of the other nerves of sense in reflex disturbances, in muscular paresis, cutaneous anaesthesia or hyperæsthesia, or in oculomotor symptoms and pupillary changes. Such causes as apoplexies, effusions, thrombi, or cerebral lesions, acting by inhibition, are most likely to reveal themselves in objective signs in the parts in correspondence or associated with these cerebral centers. It is probable that in such reflected excitations we have an explanation of a tinnitus without deafness, as in cases of dental caries, dental periostitis with neuralgia, spinal tabes, uterine disorders, as versions and flexions, and in the functional sexual disorders of the menopause or pregnancy (though in the latter it is more often to be attributed to arterial tension and hæmic changes).

Class 2.—We may expect to find similar symptoms to those referred to in Class 1, with more direct evidence of a lesion or excitation in the auditory nerve itself. In hyperæsthesia, the hyper sensitiveness and pain attendant upon certain sounds, though there may be normal acuteness of hearing; in traumatism, the history of some injury, as a blow on the ear, a railway collision, a nasal fracture; in sclerosis and atrophy, the absolute deafness and the negative response to the watch or tuning fork, even by conduction, added to the history of pre-existing aural symptoms and progressive deafness or possibly vertigo; in irritation of the vaso-motor center, vaso-motor disturbances of the labyrinth due to reflected excitations arising in the spinal cord or in the nuclei or branches of the fifth nerve, with all such evidences as spinal neurosis, spinal and ganglionic irritation, oculo-motor symptoms, visual disturbances, gastric crises, headache, possibly thyroid changes, flushing of the face, dental neuralgia and associated dental affections, as in eruption of the wisdom teeth, eruption of ocular and laryngeal migraine.

Urine of low specific gravity, with a radial pulse of high tension, albuminous or that charged with excess of uric acid, the characteristic uræmic complications with the associated altered blood of pregnancy, require only to be remembered as coming under this class to secure their detection on examination.

In Class 3 we confront more clearly local causes of the tinnitus. Such peripheral auditory nerve excitations are usually associated with some abnormal states of the middle ear or the membrana tympani. These, in a case of diminution of labyrinthine pressure from changes in the perilymph or endolymph, with accompanying rigidity of the round membrane or fixation of the stapes, have, most frequently as their consequences, tinnitus, deafness with vertigo, and often nausea. The ossicula frequently are involved, the joints are ankylosed, the membrane is fixed, its pockets are altered in shape; the malleus is sharply defined, or if the case be an old one its head alone is visible, the normal division of the membrane into pockets is absent, the pyramid of the light is either blurred or imperceptible, and the membrane may have lost its translucent look. But at other times this is not so, and though there is clear evidence from the tuning fork, watch, and acoumeter that the auditory nerve is affected, the membrane preserves its translucency, and there is but little deviation from the natural appearances. Then there are the cases in which the hearing distance is normal or a fair degree of hearing is preserved, and still we have tinnitus, and possibly vertigo superadded. There may or may not be local evidences of gross middle ear changes. We at once suspect vascular tension, increase or diminution of blood pressure, and we search for evidence of organic cardiac changes or altered states of the circulatory fluid in anæmic or hyperæmic conditions. This suspicion may be verified by the discovery of a feeble systole, the presence of a cardiac murmur, or valvular disease. The urine requires to be carefully tested, and such toxic states as are likely to influence vascular tension may be detected. Such toxic or hæmic sources of tinnitus are frequently the forerunners of deafness, and the occurrence of Ménière's symptoms, following on extravasations and apoplexies. Aural vertigo rarely occurs without the associated "noise in the ears." The first attack may occur suddenly and without previous warning, but generally there has been some pre-existing tinnitus with impairment of hearing.

Class 3.—Peripheral lesions in the labyrinth are often attended with loud noises, and not infrequently the patient will describe two or three different kinds of noises, one of which is a musical tone or note. But we look in vain in these cases, as distinguished from those in Classes 1 and 2, for any evidence of serious cerebral complications or such causes as uræmia, anæmia, or pregnancy. Gout and rheumatism occasionally may cause tinnitus; but this symptom is associated with evidence of gouty changes in the meatus or on the membrane, and the uric-acid diathesis is manifested by the evidences of gout elsewhere in the body, and the presence of free uric acid in the urine. A pasty meatus, shedding of epithelium, and possibly a slight discharge, are often seen in such gouty cases. Also, we may find on inspection that some cretaceous deposits have occurred, which are seen as irregular white coatings on the membrane. Such cretaceous masses I have frequently observed in gouty patients. I must say that in my experience I have rarely found tinnitus and deafness arising from changes in the middle ear as a result of acquired

syphilis. This is not so true in the case of the labyrinth. If they are caused by specific disease there are other signs of syphilis present, most probably in the skin or palate and pharynx, or the nose, and there is the history of a past syphilitic attack. Mere reflected disturbances of the labyrinth, which arise in uterine disorders, during pregnancy, in various forms of dyspepsia, hepatic congestion, flatulent distension of the bowel, or in various visceral neuroses, obviously form but one of the groups of symptoms which are met with in such conditions. More particularly has it to be remembered that tinnitus has its possible origin in dental irritation, in astigmatism and associated asthenopia, in nasal turbinate abnormalities, since such starting points of excitation are specially apt to be overlooked. This remark applies more particularly to the nose. In every case of tinnitus the septum and turbinate bones have to be carefully explored. In many instances it will furnish an explanation of the aural condition.

Class 4.—Here we realize a source of tinnitus which has its direct origin rather in a muscle than in a nerve. Obviously any abnormal action of the tensor tympani or stapedius, causing increase or diminution of pressure and alteration in the equilibration of the labyrinthine fluid, may start a tinnitus. Remembering this, we must not omit to seek for the starting point of the mischief in some direct or reflected irritation in the facial or fifth nerve. It is not necessary in such cases that we should find any indication of an affection of the middle ear or the labyrinth. Thus the hearing may be but slightly affected, or, on the other hand, the influence on the muscles may be caused by gradual changes in the mucous membrane of the tympanic cavity and the ossicular ligaments, with accompanying changes in the mobility, position, shape, and consistency of the membrane. If these latter are present they will be visible with the speculum.

Class 5.—In this class we find the commonest causes of tinnitus, both with and without deafness. Both in this and in the last group we may have, in the tympanic membrane, in displacement and obliteration of its segments, rigidity and immobility, or in varying degrees of collapse (the consequences of chronic catarrhal attacks), evidence of gross changes in the middle ear, which are associated with ankyloses of the ossicles and fixation of the stapes. The patient will often complain of inability to join in general conversation in society, may hear better in a railway train, or omnibus (*Paracousis Willisii*) and cannot synchronously distinguish two distinct tones, as, for instance, the ticking of two clocks in the same room. On watching the membrane when Valsalva's method is practised, it may not in the least, or but very slightly, yield on inflation. The cone of light is but little altered, or we may detect but the slightest movement of either pocket with Siegle's speculum. On the other hand, the membrane may appear thinner than normal, the malleus may be together displaced, so as to give the appearance of one large pocket which is blown bladder-like out on inflation. But it by no means follows that such pathological signs must be present, even though there be considerable impediment in the Eustachian tube from imprisoned secretion, collapsed walls, stenosis, or obstruction from other cause. Slight deviation from the normal position and translucency of the membrane may be detected, but it is only on listening with the otoscope (auscultation tube) to the inflation of the tympanum, and by careful observation of the membrane through Siegle's speculum, that we are enabled to discover obstruction or collapse of the Eustachian tube. Ex-

amination of the nose and throat may give the clue to the interference with the tympanic ventilation. In the nose, spurs or deviation of the septum, enlarged turbinates, hypertrophic mucous membrane, polypus, rhinolith (both the latter rarely); in the throat, relaxed and feeble palatal muscles, congestion of the palato-pharyngeal mucous membrane (with probably elongated uvula), tonsillar hypertrophy, adenoid growths, are among the more frequently occurring and accompanying conditions which explain the Eustachian interferences, and account for the altered relations of the air in the tympanum to the blood in its vessels, as well as the pathological conditions of the vessels themselves.

Class 6.—I have included under this head those more serious middle ear complications which follow upon disease of the arterial tissues—local apoplexies, extravasations of blood, lymph exudations, congestion of the venous sinuses, arising from pressure or in cardiac diseases. To it also we refer those noises arising from obstructed pulmonic circulation and deficient oxygenation. There are those more serious inflammations of the mastoid and petrous portions of the temporal bone, which lead to both exudations and suppuration. The recognition of such states is not generally difficult. A careful examination of the tympanum with the speculum, showing possibly intra-tympanic growths, granulations, or polypi, and the presence of a fetid discharge will at once arouse suspicion of a deeper-seated cause for the pain, giddiness, or tinnitus, than that recognizable with the speculum. Pain, tenderness and fullness over the mastoid, with projection of the auricle, will generally be present when there is threatening of mastoid abscess; pain more violent and diffused over the head, possibly pupillary changes, optic neuritis, tendency to delirium and secondary lung complications, if the disease has extended deeper and has involved the petrous portion of the temporal bone, or has possibly implicated the lateral sinews.

Class 7.—The causes of tinnitus included in Class 7 are easily discovered, and hence the greater need for their being the first sought for and not overlooked. It may not be amiss to say a few words on each of these outer ear sources of tinnitus. Inflammation and abscess are easily recognized by the local symptoms of pain, severe heat, throbbing, swelling, and occlusion of the meatus, tinnitus and deafness. Such inflammation and abscess may lead to inflammation of the membrana tympani and perforation of it. These acute perforations are frequently attended by severe pain and loud tinnitus. They may occasionally be seen, if viewed through the speculum, to pulsate. Dead débris of purulent collections, epithelium, or cerumen, is apt to be left behind and cause chronic irritation in the ear passage, and may possibly lead to the occurrence of aspergillus or perforation of the membrane. A persistent tinnitus may be the consequence, which a little local attention will remove. Eczema of the meatus, especially of the gouty type, which is started by irritation of its walls, may be the sole cause of the tinnitus, and is frequently incurred by the entanglement of the desquamated particles of cuticle in cerumen and discharge which clog the lumen of the meatus and impinge on the membrane. Both exostosis and hyperostosis may set up a tinnitus by the irritation they cause. But it is rare to find these as a sole cause of tinnitus, and they are frequently present without it. More often we can trace the occurrence of the noise to associated middle ear catarrhal conditions, a gouty diathesis, or some Eustachian obstruction. In gouty patients there is at times a distinct

neurotic exaggeration of symptoms, which includes a dwelling on, and morbid apprehension of, any tinnitus that may be present. Over-indulgence in alcoholic drink, and, possibly, excess of tobacco smoking, contribute to increase the loudness and intensification of such noises. It is necessary to refer to othæmatoma (insane ear) as a cause of tinnitus, inasmuch as its etiology and pathology demand separate treatment.

Class 8.—Of the therapeutical sources of tinnitus, the only one I propose to delay over is quinine. That a temporary tinnitus, deafness, and giddiness follow on the prolonged use, or larger doses, of quinine is well known. At times this amounts to that condition known as "quinine intoxication." Burnet insists, and with this view I quite agree, that in most of the cases in which any permanent effects have been noticed as following the use of quinine, there have been other causes present quite sufficient to account for the tinnitus or deafness independent of the quinine. Still, the fact that quinine can produce aural disturbances of function, and that many of those who have taken quinine in large quantities complain of tinnitus and deafness, added to the possibility of its producing a congestive state of the vessels of the labyrinth, independently of its irritating effect on the hearing center, is sufficient to point to quinine as a probable and predisposing cause of tinnitus.

Prognosis.—It has to be confessed that in the present state of our knowledge it is difficult, in defining the grounds on which we arrive at a prognosis in cases of tinnitus aurium, to follow the lines of the classification that has been suggested. Yet that attempt at a differentiation of the causes of tinnitus may be of use in confining the proposed therapeutical steps to certain clinical and pathological conditions which may justify us in hoping for relief, if not cure following on their treatment.

1. We may, in the first place, fairly exclude from the category of curable cases those noises which attend on cerebral tumors, lesions, apoplexies, and degenerations which are secondary to the occurrence of thrombi. It is, however, conceivable that certain cerebral effusions may yield to time and such special remedies, as, for instance, iodide of potassium and mercury.

2. Atrophy, sclerosis, and traumatic lesions of the auditory nerves.

3. Rigidity of the membrane of the round opening, and fixation of the stapes against the oval opening.

4. Extravasations in the labyrinth.

5. Organized effusions in the labyrinth.

6. Traumatism of the labyrinth.

7. Rheumatic, gouty, and syphilitic degeneration of the walls and vessels of the labyrinth.

8. Organic changes in the periphery of the auditory nerve.

9. Certain chronic and irremediable conditions of the intra tympanic muscles, leading to atrophy, rigidity, or spastic contractions.

10. Many cases of chronic catarrhal inflammation, with corresponding and evident changes in the tympanum, in which a considerable degree of deafness attends on the tinnitus, and in which there is a history of progressive deafness extending over a considerable time, with possibly hereditary deafness in the patient's family.

11. Permanent closure, on occlusion of the Eustachian tube, may be included under this head.

12. Many cases of chronic Ménière's affection (true labyrinthine vertigo) in which, after the more acute

symptoms have subsided, there still persists deafness, occasional attacks of migraine and tinnitus.

13. Tinnitus consequent upon aneurysmal conditions of the auditory arteries on atheromatous changes in their tissues.

14. Exudations and tumors of the mastoid cells—say, of a syphilitic and gummatous nature,—or disease of the petrous portion of the temporal bone consequent upon chronic suppurative catarrh of the tympanum.

15. Distinct aural hallucinations attendant upon or following gross changes in the middle ear and labyrinth.

Turning now to those cases in which we may hope for amelioration, if not complete cure of the tinnitus, we may thus classify them :

1. Tinnitus arising out of any reflected local or systemic irritations of the auditory center or auditory nerve, which are due to deficient morbid blood-supply, or vaso-motor disturbances in the auditory areas.

2. Tinnitus arising out of simple primary hyperæmia of the labyrinth or a hyperæmia which is secondary to certain fevers as intermittent fever, puerperal sepsis, so-called "cerebral" fever, and the continued fevers.

3. Tinnitus consequent upon temporary alterations of the labyrinthine equilibration, whether due to altered conditions of tension of the fenestræ or increase or diminution of blood pressure, and frequently associated with cardiac functional disorders; simple hyperæsthesia acoustica.

4. Tinnitus which has its origin in rheumatic, gouty, and syphilitic conditions, whether in the labyrinth or middle ear; in the uræmia of pregnancy or Bright's disease.

5. Tinnitus due to abnormal states of the intratympanic muscles, as enervation, spasms, altered muscular tension (from defective middle ear ventilation and equilibration), producing conditions and positions of the membrana tympani and accompanying deviations in the normal relations of the ossicles, which have their consequent effects on the labyrinth through the fenestræ.

6. Tinnitus arising out of enervation of the tubal muscles of the Eustachian tube, collapse and closure of the walls of the tubes, temporary obstruction of the tubes from catarrhal conditions of the mucous membrane, or accumulation of mucus in the tube.

7. Tinnitus arising from irritations in the external ear.

8. Tinnitus arising from therapeutical causes.

9. Aural hallucinations which occur independently of any acoustic or cerebral trouble, and which may be associated with visceral or pelvic neuroses. Such hallucinations, if they become insane hallucinations, disappear with the mental alienation.

—Macnaughton Jones, in *The Lancet*.

WHEN TO STIMULATE.—Perhaps no better rules based on the condition of the heart can be formulated for the administration of stimulants than those which Stokes has laid down for our guidance. The following, according to him, are the physical signs which seem to indicate the early use of stimulants :

1. Early subsidence of the first sound, observed over the left ventricle.

2. Diminution of the first sound over the right ventricle.

3. The heart acting with a single, and that the second, sound.

4. Both sounds being audible, but their relative intensity being changed, so as to represent the action of the heart of a fœtus *in utero*.

5. With these signs, progressive diminution of impulse, which occasionally becomes imperceptible, even when the patient lies on the left side.

—*Therap. Gaz.*

Medical News and Miscellany.

THERE is a grate future for the nutmeg.

SMALL-POX has disappeared from Philadelphia.

ECZEMA is said to be frequently caused by the use of ivory soap.

DR. FOTHERGILL termed the poor, "bridges to the pockets of the rich."

A PUPIL at the Philadelphia Lying-in Charity fell down the elevator shaft and was killed.

ALL the Java sparrows imported into Maine have died. English sparrows won't stay in Maine.

THE Illinois Training School for Nurses has made arrangements to supply the County Hospital with nurses.

DOCTORS are by right entitled to a holiday of fifty-two days each year, as they know no Sunday in their vocabulary.

A JAPANESE physician recommends that vaccination be performed by injecting the virus under the skin with the hypodermic syringe.

THE tricky nerves, when under-fed or over-worked, or out of discipline, billet themselves upon some maimed organ and hold high revel there.

NITRO-GLYCERINE, ten drops of a $\frac{1}{16}$ solution, has been administered hypodermically in the complete asphyxia of drowning, with marvellous results.

SINCE perusing the latest number of the *Medical Record*, we feel warranted in stating that Dr. Shradly has returned home from his vacation improved in health.

EQUAL parts castor oil and subnitrate of bismuth make an excellent application to fissured nipples. It is not absolutely necessary to wash off before letting the child nurse.

NEVER put paper on the walls of a nursery. It is better to either paint or kalsomine. There is always danger of poison in the coloring of the paper, or of the paste becoming sour.

IT is a curious fact that mayonnaise dressing will disagree with delicate people, whereas the same ingredients put together without an egg (French dressing) will be easily digested.

WIGGINS, the weather prophet, has written a scientific novel describing life on Jupiter and predicting what the people of this earth will be like morally and politically 20,000,000 years from now.

RUSSIAN emigrants have infested Bremen with the Egyptian eye disease. It is estimated that 5,000 persons are suffering from the complaint. It has been necessary to close all the schools.

IN families where there is much sewing to be done, it is a good plan to have the bulk of work on dark and colored goods done by daylight, preserving the white sewing for the evening, in order to save the eyes.

THE newly-elected Professor of Therapeutics at Jefferson Medical College, Hobart A. Hare, has, we are credibly informed, concluded that the duties of his chair will not allow him time to edit the *Medical News*, and has resigned the journal. Wise man.

How many journal readers are aware of the fact that the article now going the rounds of the medical press entitled "Too Much Surgery," is simply an advertisement for a proprietary nostrum?

Also, how many journals are giving it circulation without pay.

VENEREAL DISEASES are said to be almost unknown among the laboring men of Paris. Out of 3,240 men in the prime of life, Dr. Fiaux found but five suffering from gonorrhœa and chancroid, and not one from syphilis. These men were applicants for work on a railroad.

SHOT should never be used to clean bottles intended to contain food, drink, or medicine. Lead-poisoning has been traced to this cause. It is said that a good way to clean bottles is to fill them with finely-chopped potatoe skins, cork tightly, and let stand three days in a warm place, until fermentation occurs.

PEROXIDE of hydrogen has been used to sterilize milk. When mixed in the proportion of five or six tablespoonfuls to the quart of milk, the milk will not curdle or become sour for forty eight hours at the summer temperature. The cream from such milk is so sweet that butter cannot be made from it for a considerable time.

PRIVATE dispatches received in Berlin say cholera is raging in German New Guinea, an attack invariably resulting in death within from fifteen to twenty hours. All who are left alive are compelled to assist in digging graves for the dead. The governor of the colony, his wife, and Dr. Wieland were among the earliest victims.

SOME London genius has invented a nose machine to reduce the varied deformities of the nasal appendage. This marks a new era in civilization, and has doubtless deeper signification than would appear at first thought. If Cleopatra's nose had been half an inch shorter the history of the world would have been entirely different.

THE eyes of travelers and pleasure-seekers who are weary of the beaten paths are just now turned towards Alaska, which is said to possess some of the most marvelous scenery in the world. An article describing a trip to Alaska, and the beauties of its mountains and valleys is contributed by Grace Peckham, M.D., to *Lippincott's* for June.

"I AM satisfied," said the dentist, "that infinitesimal currents of electricity are set up in the mouth between the saliva and many kinds of food, especially those containing a large proportion of carbon; for instance, toast. I think, too, that the same currents are produced when teeth fillings of different metals occur in the same person's mouth; furthermore, I believe that the acute relish which we experience when eating certain combinations of food is due to the action of these currents of electricity upon the sense of taste."

VIBURNUM prunifolium is recommended for the relief of troublesome cramps in the calf of the leg occurring so frequently at night. This is an old remedy which has been used in domestic practice from time immemorial. The common name of viburnum opulus is "cramp bark," and its popular reputation for the cure of cramps and spasms used to be great and widespread.

We have received a pamphlet containing information, compiled from various sources, concerning the pilocarpus pennatifolius, and the piper jaborandi. Also, another, giving the latest information and clinical reports of euphorbia pilulifera, and evening primrose, œnothera biennis. Reprinted from the *Pharmacology of the Newer Materia Medica*. They are both worthy of careful perusal.

THE KOCH INSTITUTE.—The introduction of a bill in the Prussian legislature to endow the Koch Institute last week was made the occasion of a legislative debate on the value of the remedy. There seemed to be a feeling that the government had patronized tuberculin with a little too much enthusiasm. Virchow is said to have opposed the grant, which was nevertheless voted, the sum being about \$40,000.

DR. JAMES W. WHITE, well-known in dental circles, dropped dead last Wednesday. Dr. White was a man of strong likes and dislikes, very popular with his friends, and very much detested by his enemies. His abilities were so highly valued by the S. S. White Dental Company that he is said to have received a salary of \$10,000 per annum for editing their organ, the *Dental Cosmos*. His work on the Seybert Commission, in investigating the claims of alleged spiritualists, was of the greatest value.

THE administrator of anæsthetics at the Samaritan Hospital for Women had the misfortune to have a patient die under his hands last week. The patient was a woman aged thirty two years, who was admitted for the purpose of having an internal tumor removed. An inquest has been held by Dr. Danford Thomas, at which it was stated that the deceased had been inhaling chloroform, administered in the usual manner, only three minutes, when she suddenly became pale, and died of syncope. She was said to be extremely weak, and also to have a fatty heart. The verdict returned was "death from misadventure."—*Hosp. Gaz.*

LETTUCE AS A CARRIER OF DISEASE.—The *Maryland Medical Journal* has it from the authority of a farm-hand who "has been there" that the market gardeners about Baltimore (and other cities we doubt not), in their eagerness to be first in the market, dilute the human feces from the cess-pool with water, and by the aid of a watering-pot sprinkle it daily upon their lettuces and cabbages. The plants, grown large, and more or less saturated with fecal matters, are then served as an appetizing luxury upon our tables, having first undergone such a cleansing as the cook thinks necessary. This cleansing for the most part consists in a hasty washing of the plants with cold water. In view of the fact that lettuce is eaten raw, and of the assertion made by scientific men that poisonous matters are taken by such herbs directly and unchanged into their tissues from the soil about them, it would be well for those who are interested in the public health to consider the methods by which the marketman fertilizes his garden and forces his early vegetables.

PRESENTATION DAY at the University of London on Wednesday last was shorn of some of its wonted glory through the absence of the newly-appointed chancellor, the Earl of Derby, who is down with influenza. The chair was taken by the vice-chancellor, Sir James Paget, who, it is needless to say, discharged the duties in a most able manner. Women graduates were in strong force, no fewer than fifty-three taking the "M.A." degree, eight took the "B.Sc.," and eight the "M.B." Miss A. F. Piercy had the distinguished honor of carrying off the exhibition and medal in materia medica and pharmaceutical chemistry.—*Ex.*

CURRIER relates a case recently under his care. A young lady, nineteen years of age, applied to him for relief from cystitis. He sounded the bladder and thought he detected evidences of stone. He then opened the bladder through the vagina, and, on introducing his finger, withdrew a hair-pin. The girl denied all knowledge of how it came there.

She was not as confiding as a Texas girl was to us many years ago. We removed a cologne bottle from her vagina. She informed us she "accidentally swallowed it when a child, and was afraid to let it be known, as her parents might make her have it cut out." Of course we believed her.

—Country Doctor.

A LOCAL ANÆSTHETIC.—Much is said about local anæsthetics. Patented nostrums and private formulæ are being hawked about the country, and sold from five to twenty-five dollars to dentists. Permit me to suggest a preparation that I think will come as near "filling the bill" as any they have tried, as to cost, safety, and effectiveness. It is a 5 per cent. solution of carbolic acid in water. Four or five drops injected under the gum each side of the tooth to be extracted, in most cases, is effective. Swelling and inflammation around the teeth causes its action to be the more noticeable and satisfactory. Its effect is almost instantaneous. As one has to use twenty drops of this solution to get one drop of carbolic acid, I need not caution intelligent dentists against constitutional symptoms arising from a too free use of this agent, as it will not be necessary to use enough to produce such results.—*Items of Interest.*

AN INTERNATIONAL MEDICAL CONGRESS.—The managers of the National Prohibition Park, of Staten Island, invite representative medical men from all localities in the United States and the Dominion of Canada to meet in conference on the 15th and 16th of July next, in the great Auditorium Building of the Park. The chief object of the meeting is to be the comparison of views on the relationship of physiology and alcohol. Among the questions to be discussed will be the following:

What are the Hereditary Effects of Drunkenness?

Are there any Hereditary Effects that Follow Moderate Drinking?

To What Diseases are Inebriates More Especially Exposed?

Is Alcohol a Poison?

Is Alcohol in Any Sense a Food?

What are the Proper Uses of Alcohol as a Medicine?

Is there Danger of Producing the Drink Habit from the Prescribing of Alcoholic Medicines?

How Large a Percentage of Deaths may be Attributed, Directly or Indirectly, to the Use of Strong Drink?

Should Alcoholic Liquors Ever be Used Except under the Direction of a Medical Adviser?

WEEKLY Report of Interments in Philadelphia, from May 16 to May 23, 1891:

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Alcoholism.....	2			Fever, intermittent.....			1
Apoplexy.....	12	1		" scarlet.....			8
Asthma.....	3			" typhoid.....	12	3	
Bright's disease.....	4			Gangrene, abdominal.....		1	
Cancer.....	9			Hemorrhage.....	3		
Casualties.....	10	1		Hernia.....	2		
Cerebro-spinal meningitis..	2			Inanition.....		4	
Congestion of the brain....	2	7		Influenza.....	6	2	
" lungs.....	4	2		Inflammation brain.....	5	15	
Child birth.....	2			" bronchi.....	7	9	
Cholera infantum.....		7		" kidneys.....	5	1	
Cirrhosis of the liver.....	56	6		" heart.....	21	14	
Consumption of the lungs..	1			" lungs.....	7		
Collapse of lungs.....	14			" peritoneum.....	4	3	
Convulsions.....	2			" s. & bowels...	1		
puerperal.....	2			Intussusception.....	1		
Croup.....	2			Laparotomy.....	1		
Cyanosis.....	4			Marasmus.....	1	10	
Debility.....	2			Measles.....	1		
Diarrhœa.....	1	4		Neuralgia, heart.....	1		
Diphtheria.....	17			Obstruction of the bowels..		1	
Disease of the brain.....	1			Old age.....	20		
" heart.....	21	3		Paralysis.....	6		
" kidneys.....	2			Rheumatism.....	1	3	
" liver.....	1			Scrofula.....	1	1	
Drowned.....	4			Septicæmia.....	4	2	
Dropsy.....	2			Suicide.....	1	1	
Effusion of the brain.....	1			Teething.....		1	
Epilepsy.....	3			Tumor.....	3		
Erysipelas.....	1			Uræmia.....	5		
Enlargement of the heart..	1			Whooping cough.....		3	
Embolism, cerebral.....	1						
" cardiac.....	1			Total.....		263	160

ETHER DRINKING IN IRELAND.—It has been affirmed that in Draperstown district, County Derry, out of a population of 9,500, there are 6,200 ether-drinkers, and that persons of all classes, the clergy, the gentry, ladies, and the working-classes, are victims addicted to the vice. This statement and others similar in character, relating to the practice of drinking ether in various portions of the north of Ireland are, however, grossly exaggerated, and, although a good deal of ether drinking takes place, it is very trifling in comparison to what has been alleged. Ether-drinking causes irritation of the stomach and a liability to gastric ulcer. The ether used is a vile compound, being made from methylated spirit, and costs about two shillings a pint. Ether-drinkers appear to select ether instead of whisky because it is so very much cheaper and they can become intoxicated sooner, while the stage of inebriety is very much shortened.

SKIN GRAFTING BY MACHINERY.—On a recent March morning, at the Massachusetts General Hospital, a little instrument, invented by Dr. Mixter, wonderful in its simplicity, constructed so as to separate large portions of epidermis from the subcutaneous tissue, was used for the first time.

The patient had been etherized, and had undergone operation for the removal of a cancerous growth from the left breast, and the wound thus made was quite an extensive one. The instrument was applied to the anterior portion of the right thigh, and three strips, about an inch wide by six inches long, were taken off and transplanted to the exposed surface of the breast. The operation of removing the skin and transplanting it to its new quarters did not occupy more than about six minutes. A very few days will suffice to restore the denuded surface of the thigh to its normal condition, leaving few traces of the reparative process to which it has contributed, and, other things being equal, the surface from which the cancerous tumor has been excised will heal over by first intention, thus saving the patient from a prolonged and painful period of convalescence. Of course, every precaution is taken by the use of sterilizing

processes and antiseptic solutions, to render the operation thoroughly aseptic, so that the chances of inflammatory disturbances from bacterial sources are reduced to the lowest minimum.

The thickness of these delicate human plasters probably does not exceed one-sixtieth of an inch, and the resulting hemorrhage is not more than what one sees on a slight abrasion of the skin; or, it may be compared to the sanguineous oozing one gets from too earnest tonsorial attention.

The advantage of the new over the old method of epidermic detachment is obvious. It is expeditious, the sections of shaved cuticle are much larger and of a more uniform thickness than can be obtained by the most dexterous manipulator, and the chances of successful grafting are enhanced by the fact that the skin is transplanted while the cellular elements are in their full vital activity.

DR. SHORTHOUSE has been diagnosing the effect of various intoxicating liquors on different parts of the cerebellum when imbibed not "wisely but too well," and the tendency of the result of his investigations is to indicate that inebriety can be reduced to an exact science so far as its subsequent demonstrations are concerned. Dr. Shorthouse finds that good wine and beer indiscreetly imbibed have the effect of making a man fall on his side; whisky, and especially Irish whisky, on his face, and cider and perry on his back—these disturbances of equilibrium corresponding exactly with those caused by injury to the lateral lobes and to the anterior and posterior parts of the middle lobe of the cerebellum respectively. Should the soundness of Dr. Shorthouse's theories be established, the future labors of the statistician and the scientist in determining the popular use and abuse of spirituous liquors will be materially lessened by the testimony of the city policeman.

NOTWITHSTANDING the advent of summer weather, the influenza is steadily spreading throughout the country and sadly increasing the bills of mortality. In many towns in the North of England, where the epidemic is prevailing, the death-rate has increased to double the average numbers. A noteworthy feature of the disease is its impartiality, attacking indiscriminately the rich and the poor, the just and the unjust. The latest to be attacked is H.R.H. the Prince of Wales, who, let us hope, will not suffer seriously. Mr. Gladstone is also suffering from a mild attack, and several other M.P.'s are unable to attend to their parliamentary duties in consequence of the disease. Through the epidemic our metropolitan hospitals are very much crowded, so that many necessitous cases are refused admission. At an inquest held by Dr. Danford Thomas a few days ago, on the body of a man who had died from rupture of a blood-vessel, it was stated that he was taken to three hospitals, viz., The Royal Free, St. Bartholomew's, and University College, before he could be accommodated with a bed.—*Hosp. Gaz.*

At the meeting of the Board of Trustees of the University of Pennsylvania, held May 21, Dr. Pepper made an offer of \$50,000 towards an endowment fund of \$250,000, and of \$1,000 annually towards a guarantee fund of \$20,000 annually, for five years, conditioned upon the establishment of an obligatory graded four-year course of medical study. This was accompanied by a communication from the Medical Faculty, pledging themselves to carry out this proposal, and to enter upon the four-year course in

September, 1893. It was also reported that the members of the Medical Faculty had themselves subscribed \$10,000 annually for five years to the endowment fund. The Board of Trustees expressed warm approval of the proposed advance in medical education, but postponed their assent until the success of both funds had been demonstrated.

It is claimed that the approaching completion of the fine Laboratory of Hygiene, built by Henry C. Lea, Esq., will render the medical facilities of this school unequaled. It is to be hoped that the necessary pledges will be secured promptly, as the interests of the entire community are deeply involved in the success of this great advance, which will enable medical students to obtain a thorough practical education in every branch of their profession.

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from May 19, to May 25, 1891.

Captain Guy L. Edie, Assistant-Surgeon, is relieved from duty at Fort Douglass, Utah Territory, and will report in person to the commanding officer Fort Niobrara, Nebraska, for duty at that post, relieving Major Timothy E. Wilcox, Surgeon. Major Wilcox, on being relieved by Captain Edie, will report in person to the commanding officer Fort Huachuca, Arizona Territory, for duty at that post. Par. 14, S. O. 102, A. G. O., May 5, 1891.

Captain Walter D. McCaw, Assistant-Surgeon, is relieved from duty at Fort McPherson, Ga., and will report in person to the commanding officer Camp Pilot Butte, Wyoming, for duty at that post, relieving Captain George E. Bushnell, Assistant-Surgeon. Captain Bushnell, on being relieved by Captain McCaw, will report in person to the commanding officer Fort McKinney, Wyoming, for duty at that post. Par. 14, S. O. 102, A. G. O., May 5, 1891.

First Lieutenant Joseph P. Clarke, Assistant-Surgeon, is relieved from duty at Fort Riley, Kansas, and will report in person to the commanding officer Camp Poplar River, Montana, for duty at that station, relieving First Lieutenant Jefferson D. Poindexter, Assistant-Surgeon. First Lieutenant Poindexter, on being relieved by Lieutenant Clarke, will report in person to the commanding officer Fort Niobrara, Nebraska, for duty at that post. Par. 14, S. O. 102, A. G. O., May 5, 1891.

By directing of the Secretary, the following assignments of recently appointed medical officers are ordered: First Lieutenant William F. Lippitt, Jr., Assistant-Surgeon, will report in person for duty to the commanding officer Fort McPherson, Ga.; First Lieutenant Benjamin Brooke, Assistant-Surgeon, will report in person to the commanding officer Fort Riley, Kan.; First Lieutenant Merritt W. Ireland, Assistant-Surgeon, will proceed from Columbia City, Ind., to Jefferson Barracks, Mo., and report in person for duty to commanding officer of that post; First Lieutenant George M. Wells, Assistant-Surgeon, will proceed from Paoli, Ind., to Columbus Barracks, Ohio, and report in person for duty to the commanding officer of that post. Par. 83, S. O. 115, A. G. O., May 20, 1891.

Leave of absence for one month to commence on or about May 23d instant, is hereby granted to Captain Marshall W. Wood, Assistant-Surgeon, U. S. Army. Par. 1, S. O. 104, Division of Atlantic, May 20, 1891.

Captain William B. Banister, Assistant-Surgeon, is assigned to duty as Medical Officer with Troop B, Sixth Cavalry, while en route from Fort Meyer, Va., to Fort Washakie, Wyo. On arrival of the troops at its destination, Captain Banister will return to his station at Washington Barracks. Par. 3, S. O. 104, Division of Atlantic, May 20, 1891.

By direction of the Secretary of War, Captain George McCreery, Assistant-Surgeon, is relieved from duty at Fort Clark, Texas, and will report in person to the commanding officer, Fort McIntosh, Texas, for duty at that post. Par. 4, S. O. 114, A. G. O., May 19, 1891.

Captain John O. Skinner, Assistant-Surgeon, U. S. Army, Fort Davis, Texas, will proceed at once to Fort Clark, Texas, and report to the commanding officer for temporary duty. Par. 4, S. O. 44, Department of Texas, May 13, 1891.

The Times and Register.

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Whole No. 665.

ORIGINAL ARTICLES.

THE WEST INDIES AS A SANITARIUM. By William F. Hutchinson, Providence . . . 467

A PLEA FOR THE EARLY APPLICATION OF SPLINTS. By Herbert A. Starkey, M.D., Hegewisch, Ill. 470

A SYNOPSIS OF THE SYMPTOMS, COURSE, AND TREATMENT OF FORTY FIVE CASES OF DIPHTHERIA. By J. G. Pace, M.D., Ellwood, Neb. 471

SOCIETY NOTES.

KENTUCKY STATE MEDICAL SOCIETY . . . 472

Abdominal Surgery. McMurtry 472

The Reciprocal Relations of the Public and the Medical Profession. Todd . . . 472

Vital Statistics of Kentucky. Greenley . . 473

The Progress of Medicine. Coleman . . . 473

Progress in Obstetrics. Anderson 473

Progress in Practical Medicine. Coleman . 473

The Treatment of Lupus by Methyline. Croomes 473

Rachitis in Infantilis. Larabee 473

Diseases of the Rectum. Matthews 473

Brain Surgery. Rodman 473

EDITORIALS.

PROFESSIONAL BUSINESS 474

BOOK NOTICES.

Practical Points in the Management of the Diseases of Children. Love 475

Surgical Bacteriology. Senn 475

Leonard's Materia Medica and Therapeutics. Leonard 475

A Compendious Dictionary. Foster . . . 475

THE MEDICAL DIGEST.

Cystic Goitres. Wyeth 473

Causes of Normal Variations in the Chest Signs. Univ. Med. Mag. 473

The "Slow Fever" of Arkansas. Mason . . 475

Digestive Ferments in Surgery. Morris . . 475

The "McBarney Point." Gibbons 476

The Local Therapeutics of Diseases of the Nose and Throat. Phillips 476

NOTES FROM FRANCE 476

The Depopulation of France 476

Microcidine. Bertoz 476

Collection of Gas in a Calculous Kidney. Le Dentu 477

Formula for Hypodermic Use. Laveran . . 477

The Abuse of Gymnastic Exercises. Annales d'Orthopedie 477

Cataractous Lenses. Galippe 477

Tuberculous Sero fibrinous Pleurisies. Netter 477

The Investing Membrane a Filter for Microbes. Chauffend 477

Gonorrhoea. Castellani and O'Brien . . . 477

Dangerous Vapors. Kapouskine 477

Remedy for Cancer. Adamkiewicz 477

Plate of Zinc for Wounds. Moras 477

Treatment of Meager and Narrow chested Young People. Jenks 477

Cocaine Intradermically. Magilot 477

Local Tuberculosis. Boursier 477

Caustion of Typhoid Fever. Destree . . . 477

Syphilis and General Paresis. Lavellée . . 478

Iodopyrine. Muenz 478

Doses of Antipyretics for Children. Demme . 478

Influence of Some Elements of Wine upon Peptic Digestion. Hugouneng 478

Resopryrine. Jour. de Pharm. et de Chiru. 478

Lack of Common sense in Sartan 478

FRENCH NOTES. Roussel 478

Statistics of Chloroformizations. Gault . . 478

Ablation of Arm, Without Shock or Hemorrhage. Agnew 478

Condurango and Condurangin. Guzenot . . 479

Cocainism. Quar. Jour. Inebriety 479

Indications for Trephining. Deaver 480

Chloralism. Quar. Jour. Inebriety 480

Igni Puncture for Hypertrophied Tonsils. Cullen 480

Purpura Hemorrhagica Rheumatica. Brinton 480

Quinine Amblyopia. Leidy 480

Turpentine as a Germicide and Antiseptic. Schleppergrell 480

Morphinomania. Quar. Jour. Inebriety . . . 481

Atrophy of the Uterus. Sims 481

How to Scarify or Open an Abscess of the Tonsils. Smith 482

For Eczema and Herpes.—Rhus Poisoning. Kemper 482

Cabs and Omnibuses Hotbeds of Diphtheria. American Practitioner 482

Hernia in Infancy. DeGarner 483

Banana Juice for Chronic Bronchitis. Ex. . 483

Comparative Cost of Medical Education in England and America. Med. Age 483

Formulae for the External Use of Sulphur. Szadck 483

Abortion. Crowell 483

Celiotomy in Rupture of Uterus. Coe 483

MEDICAL NEWS AND MISCELLANY 484

ARMY, NAVY, AND MARINE HOSPITAL SERVICE 486

NOTES AND ITEMSiv, xii

Original Articles.

THE WEST INDIES AS A SANITARIUM.

By WILLIAM F. HUTCHINSON, M.D., PROVIDENCE.

CHAPTER XIV.

NASSAU.

IN the course of our peregrinations through tropical seas, I have reserved my description of Nassua, in the Bahamas, for the last, and with it shall close this little volume of pictures Under the Southern Cross.

This island was my first love, and for four or five successive winters I returned again and again to its delightful climate, its charming home circles of society, and its excellent hotels. Indeed, I became so much attached to the place that it was a matter of considerable difficulty to decide which was most like home to me, the lovely island of the sunny sea or the New England city in which I live.

Nassau may be reached at present, like Cuba, by two ways. One, avoiding a stormy sea travel and reducing the actual time on ship board to less than two days, is by rail to Tampa Port, by boat to Havana, rail to Cienfuegos, and thence by the palace steamers of the Ward line direct to Nassau. Along the south coast of Cuba, the last part of this route is sufficiently interesting to richly repay the tourist for all the trouble and expense of the journey, were there nothing else beyond. It is hard to avoid expatiating upon the beauty of this little voyage, and here, if the traveler goes this way, he will have his first view of the Southern Cross. Perhaps he has never seen it before. The chances are he has not, and as everybody is anxious to make the acquaintance of the illustrious stranger, a sufficient amount of determination is easily summoned to meet him, even at two o'clock in the morning. No toilet is needed for the

ceremony, as the soft night air of this delightful latitude permits night dresses to be worn on the deck of the steamer at sea.

All the way down, the main object in life of my party seemed to have been a view of the Southern Cross. They searched the whole sky after crosses made of stars all the way from St. Augustine to Santiago. I pointed out at various times sets of stars more or less crossed, but the captain always said they were false, so he was let alone. But the night out from Santiago they made up their minds that the Southern Cross must be seen, and appeared on deck at two o'clock in the morning ready for an introduction. They gathered around the captain, who pointed to a shining cross on the glistening ceiling overhead, and expressed opposing views as to its effect. There, swinging low among a myriad of sparkling suns, its lower arm almost reaching the haze near the horizon, blazed the constellation, and when I looked at its irregular outlines, that are but half as brilliant as they are far south, they brought back so vividly scenes in years gone by, of the lovely bay of Rio Janeiro, the broad waters of the River Plate and the palm and coral islands of the South Pacific, that it was like the face of a long absent friend just returned.

It is not much of a cross, artistically speaking; but, then, neither was the one that first made transverse bars emblem of a world's salvation. Of four stars only, and one of them out of line, it makes no great show so far north as this, and needs for its full development of beauty much farther southern seas.

Island after island sprang up and disappeared the whole live-long day; shadows after shadows chased each other along the beautiful mountain sides, and the verdure which clothes them to their topmost peaks assumed different colors as the sun went down.

There was no more motion to the steamer in this smooth sea than upon a river, and the discomfort that

attends roughness of the water, was quite lost in the quietude that reigned about.

Morning followed a restful night, but before we come to anchor off Hog Island Light, at the western end of Nassau, the picture framed by the casement of my window was so charming that it is still hard to restrain myself when I talk of this, our winter island home. A long, lowland stretched westward until its dark green was lost in sea; in front, a gray fortress and water battery, with white foam lazily creeping up the slope; to the left a snowy shaft bearing a lantern, and in the centre, the red roofs, spires and many flag staffs of the town that creeps up from the shore step by step to a ridge that is crowned by Government House, the Royal Victoria Hotel, and a range of handsome residences. Here, there and everywhere fan branches of the cocoanut gave tropical tone, softened and brightened by the tints that are used to color houses and kill the staring white that is so inartistic. There was not one chimney visible, only perpetual summer in the scene, and the motionless silence of the early morning was that of summer lands alone. Restless nerves were quieted; tired eyes looked out upon the scene and found promise of health in the restfulness they saw. Between us and the shore was the most beautiful water imaginable, some fifty feet deep, of a dark ultramarine blue, changing across the bar to a living emerald green, shaded off by its foam dashing against the beach into snow white, and assuming now and then a tint of gold as morning sunlight fell on it.

Words fall short in describing this beautiful bay, and the truest painter to nature that I know, Bierstadt, in his "Azure Sea" which he sketched from yonder light-house, also fell short; and yet, I have heard the picture called a gross exaggeration, a manifest impossibility.

There is no trouble here, or elsewhere indeed, in the West Indies, with the customs. The examination is but a matter of form, soon gone through with, and trunks are rarely opened.

At Nassau this winter there have been one or two new hotels opened, and one may now choose between comparative luxury at the Royal Victoria at four dollars a day, and much smaller prices down to twelve dollars a week, at comfortable boarding-houses.

Tourists may choose their yachts either at home or when they arrive; and will find, I think, boats perfectly well fitted for the waters of these quiet seas, at a much lower rate than if they had sent them down from New York in advance, although perhaps not quite so comfortable nor luxurious.

The regulation price for a sail to the sea-gardens and return is fifty cents apiece, for a party of not less than five. Over that number or below, a special bargain must be made. Arrangements may be perfected for visits to the out-lying islands, either by the mail-boat, which goes once a week around them all, or by chartering a sponge schooner. In either case the traveler will find it absolutely necessary to provide his own food, and if thereto he adds any article of bedding that he is accustomed to depend upon for comfort, he will go far to insure the pleasure of the voyage.

Horses and carriages are easily obtainable at fair prices; but, as the island government has not established any rate, bargains for everything exceeding a half hour's drive about the town should be made with the owners of the livery stables.

I am delighted to be able to add my tribute to the many which the courteous and kind medical men of

Nassau are in the habit of receiving. They have no superiors in any land for skill in the practice that comes within their scope, and are always ready to be the friend as well as the physician of those whom fortune places under their care.

The only really expensive thing that I know of in Nassau is death. It costs more to undergo final change in this island than almost anywhere I know. All the furniture of the room wherein the death took place must be renewed, and if there is the smallest suspicion of contagion accompanying the disease, the sanitary laws of the place require a complete renewal of even the wall finish. Then undertaker's fees are exorbitant; and, taking the whole thing into consideration, I very strongly advise any one whose death is considered imminent, not to precipitate the catastrophe at Nassau.

To all who visit the tropics for the first or second time, the fruits and flowers that they meet are like revelation of a fairy dream. They are so totally different from every one's conception of them, that a plate of shining fruit that one may buy in the market for a dollar contains a series of surprises oftentimes as unpleasant as striking. I handed a lady one morning a beautiful specimen of the custard apple, and, after she had discussed it, asked her what she thought it tasted like. Her answer was: "I do not believe that I shall ever learn to like these tropical fruits; certainly not if the rest that I do not know are as uncomfortable to eat as this one." "Why," said I, "what did it taste like?" "Well," was the reply, "I don't know of anything that I can compare it to, except a ball of cotton saturated with kerosene." While the comparison was a little far fetched, I must confess that the majority of tropical fruits require some practice for their full appreciation.

To those who are fond of fishing, the inhabitants of these transparent seas offer continued delight. They are easily caught in a novel way. One sends his bait down thirty, forty, or even sixty feet, through water so clear that he can watch the bottom, as if looking through glass, and see what sort of fish and what color he prefers to tempt with his bait. So he lowers away, past an outlying dog fish, who is watching for something better; past too, maybe, a small specimen of hammer-headed shark, who is keeping a sharp eye on the dog fish, down to where some brilliant specimens of squirrel fish or of blue fish are playing over the golden sands below; then, with the utmost deliberation, he places the tempting bait exactly in front of his intended victim's nose, and waits till he takes hold. Usually the boatman is watching this proceeding through a water glass, and indicates the precise moment when the fish has taken the hook by a sharp command of "Strike, sir, strike." A quick jerk and a pull, and up comes the very fish that you have chosen, to gladden your eyes close at hand, if, by the way, he is not snapped up by the shark or dog fish lying in wait.

Shark fishing parties may be made up after a little notice. In order to make these a success it is necessary that a dead horse, mule or donkey, or the carcass of some large animal should be anchored outside the bar, as ground bait for the sharks. I have seen a dozen of the most ferocious kind of man eaters clustering around such a carcass, tearing away at its flesh, or fighting with each other, and have seen fine sport for fishermen in capturing them.

As to the bathing, it is impossible to say too much, or to speak too highly. One feels the need of a few more adjectives when he comes to tell of the beauty of the beach on the other side of Hog Island, opposite

the town. Early in the morning before the sun has grown hot, a boat carries a party across the narrow bay to a little landing, whence a narrow path winds a couple of hundred yards through Spanish bayonet and guava bush till it ends in a broad, semi-circular sweep of golden sand, up whose soft incline green, transparent waves creep leisurely, tumbling over each other in rippling laughter. As far out as one can see, this beach of sand floors the azure sea, so transparent that a long distance out any prowling shark may be readily seen, and his visit avoided. But in the years that I have been here no shark has been seen upon this beach. The water shoals too gradually for them, and with the exception of the early morning visitors for baths there is no temptation to come. The water is as warm as the blood that pulses in your veins, and beneath the sparkling rays of the early morning sun one stretches with profound delight them limbs upon warm sand, and luxuriates in the delicious sensation of the water climbing over his body. It is laden with sunshine that it has breathed in all its long way across the broad Atlantic, and it brings to enervated forms lying prone beneath its soft caresses, some at least of the tonic influences that it has gathered from odd corners of the earth in its journeyings to and fro. From such a bath as this one rises doubly refreshed, stronger in body, more peaceful in mind, and more quiet in nerves than he would have believed possible. Such bathing as it is, so simply unequalled in any of the islands! There is not a place from Nassau to Trinidad; not a beach from Panama to Para, where anything like the same comfort and benefit can be found as on this beautiful sweep of sand at Nassau.

On the hill to the right of the Royal Victoria hotel is an extraordinary structure, called "Fort Fincastle." It looks like an old-fashioned side-wheel steamer, and was built with the idea that it might some day be used against an enemy; but it has never done any other duty than that of a signal station, which it at present is. From its bastions one may descend and follow a little path more to the right until he comes to the entrance of a curious gorge, to whose floor he can descend by a long flight of steps, known as "The Queen's Staircase," and on the lower steps many people, who fancy that sort of thing, have their photographs taken as souvenirs of the visit.

Another famous evening call and drive is "down along" till you reach Waterloo—an estate on the grounds of which is the pond, known as the "Phosphorescent Lake." Our boatman called it the "Preposterous Lake," and when one sees the magnificent display of phosphorescence made by its living waters the name is not so far out after all. Dropping an oar blade into the sleeping surface arouses so much life, scatters so brilliant a display of sparkling light about that reading a letter or fine print of a newspaper may be easily accomplished in darkest night.

Our boat aroused the inhabitants of the lake, turtles and fishes, which darted here and there in alarm. Every motion they made was clearly defined in lines of flame which soon crossed and recrossed each other until the lake looked like an illuminated map. From every hand dipped in the water fell showers of gems as it came up again, and where the moonlight shadows were darkest, grasses on the bottom shone through to the surface with a steady gleam.

The shouting church at Grantstown is a great curiosity in its way. It is a square, unpretending building of unpainted pine, with a wattled roof of palm leaves, and a crowd of worshipers whose enthusiasm and religion seem to be about equal. If the

visitor is fortunate enough to be present when what they call a "grand rush" takes place, he will see a most curious spectacle, and probably make up his mind that such doings would be better outside the church. The march around while the singing is under way is an exciting scene, and the tune, the very words of the hymn, are ringing in my ears as I write, and they will in yours too, I think, when you hear them.

Nassau, of late, has given considerable attention to the American aloë (sometimes called the century plant, in this country), now better known as the Bahama fiber. Governor Robinson, of Trinidad, in his carefully-studied and convincing address upon this subject, has so plainly demonstrated the value of this new industry to the island that it scarcely needed the fact of increase of value in land 1,000 per cent. to tell how great a boon the culture has been to the natives. A young lady of my party this year bought a hundred acres of land at Nassau, four seasons ago, for the crown price—5 shillings an acre—and refused, this year, \$5 an acre for the same. She means to keep it, she says, until it is worth \$25 an acre, and believes the time will come soon.

But, after all, the chief value of Nassau is as a health resort. There are altogether too few amusements,—it is quite too small and dull a place to hold still the eager, healthy, pleasure-seeker. I have learned by repeated experience that consumptives, in anything like an advanced stage, do badly there. The climate is so soft and moist that lungs already beginning to soften go quickly. No such invalid should be sent there; but where bronchitis is concerned, or catarrh of the nasal passages, or any of the many throat diseases that scourge the North in winter, the case is quite reversed. Such sufferers find help in the air, and are frequently cured with a speed that seems miraculous; but the diagnosis must be accurate.

It is, beyond everything, a home for invalids with Bright's disease. I have seen them grow and gain in health almost daily beneath these glowing skies. The skin, whose every pore has been closed by cold, rapidly becomes active again, even doubling, in some instances, its excretory power, and prompt diminution of albumen follows the relief of work to these organs. This result persists until the following winter comes, and then the patient is obliged to return, of course; but after two or three years, in several of my cases, the improvement was so great that they could stand the winter of the North without serious danger.

In disorders of the nervous system, Nassau is one of the most perfect sanatoria in the world. The regular temperature—neither high nor low, the naturally perfect drainage, pleasant social surroundings, and comfortable quarters, with enforced abstinence from business cares, so relieve the pressure upon over-strained nervous centers that one is hardly ashore before he begins to feel sleepy, and he manages to spend the greater part of the first week in bed with comfort. Then comes a sense of equilibrium to which one has long been a stranger, interrupted only when the mail comes in; then a relapse for a few days follows home news, and improvement begins again when the steamer leaves the bay.

Living is not especially expensive. At the Royal Victoria hotel one may live for \$25 to \$28 a week; but excellent boarding-houses and private families take guests for about \$12 a week.

And so draws to a close my chapter on Nassau, and with it this little book, which I tender to my

readers as a souvenir of tropic lands, those summer isles of summer seas that come first to the memory of a traveler when winter winds and howling storms drive through his northern home and make them, in comparison, veritable bits of Paradise. And for a close I recall an old story.

In the middle of the bay of Nassau, opposite the public buildings, there lie upon the ocean bed the yawning timbers of a sunken ship that had finished its wanderings years before, and gone to sleep in Nassau bay. Looking down through the clear waters, one afternoon, at the fishes darting to and fro among these timbers, the bells of the Cathedral rang out the passing hour, and with the music there came to me this ancient legend.

Far away on the shores of the Baltic there was once, in ages long gone by, a city called Vineta. The home of a vast commerce, it grew in riches and prosperity until, in all that wonderful kingdom, it became the first; and, so becoming, grew in luxury and sinfulness as well. At last the inhabitants came to be so arrogant in haughty pride, so wicked in their sins, and so disdainful of all holy words, that they renounced allegiance to the one true God, and only worshipped wicked pleasure. Such a course soon drew down upon the city the just wrath of an offended heaven, and one day there fell upon it a frightful tempest, through whose terrible voices were heard deep thunder tones from the earth. The next morning clear sunlight came again, and, where had stood the town, its golden rays danced merrily upon the rippling waves of the northern ocean. City and people had together been buried deep beneath the sea. And now, at nightfall, sailors sometimes row their boats over the spot, and, looking downward, see the towers and houses of the town, and, listening intently, may even catch the requiem music of the bells below. But, should the melody reach their entranced ears, the penalty comes with it—that each year, upon the anniversary of the day, they must return to Vineta and seek once more to see the towers and to hear the music of the bells.

And as we lingered over the picture under the waves, and heard the soft song of our Cathedral bells, we knew that to us, too, had come the penalty—that again and again we must obey the magic of the spell and return to

"Summer isles of Eden
In dark purple spheres of sea."

A PLEA FOR THE EARLY APPLICATION OF SPLINTS.

By HERBERT A. STARKEY, M.D.

HEGEWISCH, ILL.

I WILL not attempt to answer the question that my Professor of Surgery used to put to his class, "Can a broken bone heal without inflammation?"

It can at least heal without the violent inflammation I have seen set up by meddling with a broken bone for diagnostic purposes, and by allowing the fracture to rest several days to apply cooling lotions. If we see the case early, and encase it in a snugly fitting splint, we will obtain a far better result than by waiting to see if there is to be swelling. Of course, the bandages must be watched and loosened if necessary, so as not to be obliged to report another case of "The deadly bandage." A few cases in point will illustrate:

CASE I.—Fracture of anatomical neck of humerus, with forward dislocation of both bones of forearm.

Chas. A., aged twenty-two years, fell twenty-eight feet to pine floor, striking on right elbow and shoulder. Both bones of forearm were driven up to middle third of humerus, olecranon and coronoid processes being broken. Considerable bone crepitus, and some limitation of motion in shoulder joint; no deformity of shoulder. No swelling had occurred, so the fractures and dislocations were reduced, shoulder fixed, and arm put at obtuse angle and held with binders' board.

The patient had but little pain or swelling till two days later. A professor was called in consultation, who removed the dressing, threw bones at elbow out of place, and reduced them several times to make his diagnosis, and advised the elbow dressed straight. A violent inflammation was set up, which a week's application of lead water and laudanum failed to affect, as the patient could not keep the arm still (my consultant had advised resting the arm on a pillow until inflammation subsided). I finally reapplied the old dressing, after which the swelling and pain quickly subsided. In three weeks passive motion was begun, and two weeks later galvanism applied. He obtained good motion in elbow, and some in shoulder.

CASE II.—J. R., aged thirty-five years. Compound fracture of tibia, fibula and metatarsal bones of right limb. He was seen twenty minutes after receiving injury. Bleeding stopped, wounds dressed antiseptically, and splints applied. He had no shock, and was sent to the hospital, where, two days later, with circulation good, no fever or pain, the dressings were removed, to prove diagnosis. It was three weeks before splints could be reapplied, on account of pain and swelling. Three months in the hospital and three more on crutches was the result.

The day he was injured, a boy, aged seventeen years, anemic, received two simple fractures of tibia and one of fibula. The injured leg was put in splints at once, which were not removed for five weeks, when a light "Wiggin" dressing was applied. In this case, although the boy was sickly, there was not enough swelling to justify me in removing the splints. In eight weeks from time of injury he had the use of the leg.

Charlie A., aged sixteen years, broke both bones of forearm. Fractures were reduced and splint applied within an hour after injury was received. In five weeks dressing was removed and patient discharged, having had no swelling or fever.

While at Johnstown, a case came under my care which will serve to illustrate my point:

Miss Maggie Jones, one of the survivors of the Hurlbut House, aged eighteen years, was picked up with a simple fracture of humerus and compound fracture of both bones of forearm. She was attended by a visiting surgeon and a trained nurse. I saw her one month from date of injury. Previous to this time the arm had been laid at rest (?) on pillows, and wound dressed with carbolized oil. The arm was swollen, exceedingly painful, ulcerated, and all fractures ununited.

At her request I removed her to the Red Cross Field Hospital, and, as she had to go over a mile of rough roads and pontoon bridges, I put the limb in a temporary but secure dressing. The tight bandages caused considerable pain while applying, but soon became so comfortable that the sufferer said "Her arm felt better than it ever had."

She was transported to the hospital by four stretcher bearers, and, after recovering from her fatigue, was given ether, the fractures reduced and held in place by home-made splints. The ulcers were dressed

antiseptically, and in a few days good results were obtained from skin grafting. The swelling and pain quickly subsided after the application of the splints, which were removed in four weeks with a good cure.

Mrs. F., aged fifty-five years; fracture of external malleolus of right ankle—which had been broken before—was seen before swelling had occurred. Fragment was reduced and held in place with adhesive straps, over which a "Wiggin" bandage was applied, and developments awaited. These, however, did not occur, and in six weeks bandage was cut off, and, with laces, was worn as a shoe for a few days longer.

J. P., aged eighteen years, had a narrow escape. He was shot with a 32-caliber Smith & Wesson eradicator, the ball striking directly over the apex of the heart, fractured the fifth rib, and followed it around the thorax to the deep muscles of the back, where it was imbedded.

I syringed the wound with hydrarg. chlor. cor. 1-1,000, dressed it antiseptically, set the fractured rib, and applied adhesive plaster. The wound and fracture healed without suppuration or fever. The bullet is still uncalled for.

A SYNOPSIS OF THE SYMPTOMS, COURSE AND TREATMENT OF FORTY-FIVE CASES OF DIPHTHERIA.

By J. G. PACE, M.D.,
ELWOOD, NEBRASKA.

WE are now at the terminus, I hope, of a very severe epidemic of diphtheria. It would appear probable that with the above number of cases in one epidemic, some certain line of treatment might be laid down as especially valuable, but this has not been my experience. Of the forty-five cases, which I have lately treated, I have found very few that followed anything like the same course. The youngest patient under my care was eight months old, the oldest was forty years, but the great majority were between two and fourteen years of age. Of these forty-five cases, there were nine deaths, and almost the entire balance count among the number of partially recovered. Three of the deaths occurred within forty-eight hours of the first noticeable symptoms. Three occurred three weeks after all diphtheritic symptoms had disappeared, and the balance occurred in from five to twelve days after the invasion. In a part of the cases, the symptoms at the beginning were very pronounced, such as vomiting, severe chills and headache, and all this before any patch appeared in the throat; in others, a patch in the throat with very slight, if any constitutional symptoms, was the first sign noticeable. The latter class of cases would probably not have been noticed before there were constitutional symptoms, if it were not that in epidemics of diphtheria, parents examine their children's throats very often, as it appears to be the popular idea that the only thing necessary to a cure is an early commencement of the treatment. In those cases that died early in the disease, there was great glandular involvement at the beginning, the glands of the neck becoming greatly enlarged, but showing no tendency to suppurate; no case that I have seen has had a suppuration of the glands; these cases died of carbonic acid poisoning, and yet at no time was the dyspnoea exceptionally severe, and the carbonic acid poisoning took place very gradually, and was not caused by obstruction about the gullet, as the parts in that region were not sufficiently swollen to cause such obstruction. I performed tracheotomy

on one of these cases that died early, but found I was still above the place of obstruction, as the operation gave very little temporary relief, the patient dying within twelve hours after the operation. The class of cases that died in from five to twelve days, died of heart failure, although they were kept on alcoholic stimulants up to the point of toleration. And when the symptoms of heart failure came on no treatment appeared to be of any avail. Hypodermics of alcohol, ether and ammonia were all used in vain. Those cases that died several weeks after all diphtheritic symptoms had left, it seemed to me, died in a curious sort of way: the child would be playing or eating and suddenly complain of being sick at the stomach, and at once begin vomiting and collapse before I could go a block and reach the house. The last class of cases are the ones where there existed great glandular enlargement. Those cases that survived were those in which the glands were very slightly involved and where the disease was confined to the throat and nose.

But, as I before stated, there were few complete recoveries. Many of the cases were followed by severe otorrhœa and deafness, which oftentimes lasted a month. In the case of a young lady under my charge, she lost her voice completely for a month, and now speaks slowly, with a drawl and a nasal twang; and several others speak with a nasal twang. In four cases there has been severe strabismus, and in five others it has been slight. The strabismus in four of the nine cases are improving, but in the other five I can see very little, if any, improvement. In two of the cases there was almost complete paralysis for several days, but motion was finally restored. I found that the severest cases were by no means the most likely to be affected with the various sequelæ; in fact, it seemed the mildest cases were the longest in getting well, and most affected with one of the various sequelæ. In cases of severe dyspnoea, I found the steam atomizer to be of the most utility; it certainly afforded considerable relief, and I think saved life in four cases. As to the medicament used in the atomizer, I used several, and cannot say that any one of them held any particular advantage over the others. I used mostly boracic acid and liquid hydrastis. I also used a weak solution of bichloride; also solutions of carbolic acid and iodine. I also used sulpho-calcine in the steam atomizer, which, apart from its soon stopping up the capillary end of the atomizing tube, I found gave less satisfaction than any of the others, besides its disagreeable odor to all parties concerned. I do not wish to forget to state that I also used tincture of myrrh, diluted with alcohol, and was much pleased with its effects.

Of the local applications to the throat, I found nitrate of silver of the most use of any I tried. It was much better than liq. chlorine, peroxide of hydrogen (H_2O_2), or sulpho-calcine, which I found was not a solvent for diphtheritic membrane during this epidemic; and I gave it a fair trial, in full strength and diluted, as a gargle, and by swabbing it in the throat; and I find the other physicians in my neighborhood have had the same experience with it during the epidemic which we have just gone through with. I have also found, to my own satisfaction, that mercury does no good, and that stimulants are to be withheld until there is an absolute demand for them. Of course, patients will stand large amounts of stimulants from the beginning of the disease without becoming intoxicated in the slightest, but to my mind that is no excuse to exhibit alcohol with as much boldness as is often done in this disease. For internal.

treatment I thought that I had better success with tincture of *phytolacca decandra*, in small doses (2 to 5 m.), than with any other remedy. It did not seem to relieve any particular symptom, but I think that the disease ran a milder course under this treatment.

Society Notes.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-sixth Annual Meeting.

A BANQUET was given by the Lexington and Fayette Counties Medical Society at the Phoenix Hotel, Lexington, May 27, 28, and 29, 1891, at which two hundred and fifty persons sat, most all being medical men. DR. HENRY MARTIN SKILLMAN, of Lexington, presided in an excellent manner. The menu was an excellent one, and was completed before the toasts were begun; these were as follows: "The Ministry," Rev. Dr. W. H. Felix, of Lexington; "Our Guests," Dr. Charles H. Todd, of Owensboro; Hon. John Young Brown, of Henderson, Democratic candidate for Governor, spoke on "Let Him who has Won the Palm Bear It;" "Our Ex-Presidents," Dr. John A. Ouchterlony, of Louisville; "The Law" was to have been responded to by the Hon. W. C. P. Breckenridge, but he was prevented from being present by the sudden death of his cousin, Judge Samuel Breckenridge, while making a speech at the Presbyterian General Assembly at Detroit, that same day; "The Medical Profession a Public Trust," was the subject by Dr. Joseph M. Matthews, of Louisville; Judge James H. Mulligan spoke wittily and well from the topic "Our Commonwealth;" "The Ladies" was responded to by Dr. Orin B. Todd, of Eminence; "Medical Progress and Heroism," by Dr. Dudley S. Reynolds, of Louisville; "Our Medical Sisterhood," by Dr. A. M. Cartledge, of Louisville.

A most enjoyable reception was given by the ladies of Lexington at the Phoenix Hotel, followed by a ball.

A dinner to doctors' wives was given by Mrs. Dr. B. L. Coleman, of Lexington, which was in opposition to the banquet to which the ladies were not invited, or, rather, crowded out by the men.

The report on

ABDOMINAL SURGERY

was made by DR. L. S. McMURTRY, of Louisville. He thought the great advance in abdominal surgery had been made along the line of greater accuracy in diagnosis, earlier and improved operations, and a better selection of cases. A very important advance in the modern conception of peritonitis. Formerly the treatment commenced and ended in opium and poultices; now we know that when the disease is not traumatic it is septic. Idiopathic peritonitis is a myth. He advised the limitation of the curette, sound, and intra-uterine stem pessaries. He wished to show that peritonitis was not, of itself, a disease, but arose from infection through various channels.

DR. SKINNER did not think the sound necessary; that the organs of the pelvis should be replaced without the use of the sound.

DR. W. H. WATHEN, of Louisville, was pleased at the character of the report of Dr. McMurry. The fault with the general practitioner is that he does not pay enough attention to the pelvic manipulations; and he frequently mistakes pelvic trouble for uterine,

and he thus increases instead of allaying the trouble. If we use asepsis or antisepsis we will not have trouble after using the sound. If careful, intra-uterine application is not dangerous. Good pelvic work is one of the greatest triumphs of surgery; bad pelvic work one of the stigmas. He uses antiseptics outside of the abdominal cavity, but none inside.

DR. J. G. CARPENTER, of Stanford, thought that the more the uterine sound was used the more patients there were for the abdominal surgeons. He thought the man who was able to diagnose could do it without the use of the sound.

DR. J. N. McCORMAC, of Bowling Green, thought that the operation for appendicitis was very much abused. He cited the cases of two doctors: One was given up to die and not operated on, the other was not so bad and was operated on. The first recovered, the second died. Opening the abdomen is a very simple operation. Anybody can do it. It is the final results we want. He wished to enter his protest against reporting cases and omitting funerals.

DR. E. R. PALMER, of Louisville, thought there was no term in medicine so much abused as that of thorough antiseptic precautions. He had seldom seen them.

DR. A. M. CARTELEDGE thought general practitioners should be taught to do laparotomies, for they must do them sometimes.

An able address of welcome was made by Dr. David Barrow, Chairman of the Committee of Arrangements.

The report of the Treasurer, Dr. James B. Kinriard, of Lancaster, showed the finances of the Society on a sure foundation, and the report of the Permanent Secretary, Dr. Steele Bailey, of Stanford, showed that gentleman had been conducting his office with the usual ability and energy.

The address of the President, Dr. Geo. W. Beeler, of Clinton, had strains of tenderness, humanity, sentiment, and poetry. McDowell, Jenner, Dudley, and Koch were given tributes, while Henry Clay was not forgotten.

THE RECIPROCAL RELATIONS OF THE PUBLIC AND THE MEDICAL PROFESSION

was the subject of a popular address delivered by DR. LYMAN BEECHER TODD, of Lexington. He told of the noble deeds of the noble medical profession of Kentucky. As a star of the first magnitude shone the history of Ephriam McDowell. He paid a tribute to the memory of Mrs. Crawford, of Boyle county, Kentucky, who was the patient first operated on by McDowell. Her courage was wonderful, and the conversation between her and Dr. McDowell was repeated as it took place before the operation. He had nothing to offer her. No favorable case reports; no anæsthetic. He could only tell her that he had never done the operation before; had never seen or heard of its being done; had no instruments especially made for it, and could promise her nothing. He thought this woman was a wonder, and recommended that a monument be erected to her memory. The doctor then went on and described the great benefits resulting from abdominal surgery. He dealt of the treatment of the insane, and recommended women in charge of women's wards. His remarks were well chosen, well delivered, and especially well received.

The following ex-Presidents occupied seats on the platform: Drs. W. H. Wathen, J. A. Ouchterlony, and L. S. McMurry, of Louisville; A. D. Price, of Harrodsburgh; Pinckney Thompson, of Henderson; J. N. McCormac, of Bowling Green; C. H. Todd,

of Owensboro; H. M. Skillman and L. B. Todd, of Lexington.

The officers elected were as follows: President, Dr. Hawkins Brown, of Huestonville; First Vice President, Dr. B. L. Coleman, of Lexington; Second Vice President, Dr. John Young Brown, of Henderson; Treasurer, Dr. J. B. Kinniard, of Lancaster; Board of Censors, Drs. B. W. Stone, of Hopkinsville; Chas. Mann, of Nicholasville, and S. W. Willis, of Winchester. Louisville was chosen as the place of the next meeting; time not decided on.

After a hot debate it was decided to publish a volume of transactions, and in consequence the membership fee was raised to three dollars per annum.

VITAL STATISTICS OF KENTUCKY

was the subject of a paper by DR. T. B. GREENLEY, of West Point, Ky. The doctor lamented the bad condition of affairs in this line in Kentucky, and queried how long it should be permitted to continue. He advocated burial permits, notification of contagious diseases, and register birth.

DR. J. N. MCCORMAC, of Bowling Green, made a practical speech in accord with the paper read.

THE PROGRESS OF MEDICINE

was the subject of a paper by DR. B. L. COLEMAN, of Lexington, in which the heredity of consumption was given prominence.

The paper was discussed by Drs. Thompson, Larabee, and Palmer.

DR. NEET, of Versailles, offered a resolution urging the Legislature to build an inebriate asylum.

DR. PUSEY, of Louisville, discussed the care of the insane in Kentucky, and criticised severely the overcrowded condition of the asylums.

PROGRESS IN OBSTETRICS

was the title of a paper by DR. TURNER ANDERSON, of Louisville. He thought whatever of substantial progress could be, must be placed to the credit of antiseptic midwifery. Measures for the Sloane maternity shows only one death out of one thousand deliveries, due to septicaemia. Since the introduction of antiseptics in midwifery the mortality has become almost nil. To place obstetrics in general practice on the same footing with these maternities is the great desideratum. To do this we must abandon auto infection and acknowledge that puerperal infection is due to contagion from external resources. The doctor gave a detailed statement of the antiseptic rules observed at the Sloane maternity. He considered the most essential item in the obstetrician's armamentarium a bottle of bichloride tablets.

PROGRESS IN PRACTICAL MEDICINE

was the subject of a paper by DR. B. L. COLEMAN, of Lexington. The doctor thought he could not better introduce his subject than by giving a short synopsis of the natural history of the micro-organisms on which the germ theory is founded. The Koch treatment of tuberculosis came in for a share of consideration. An important contribution to the study of cerebro-spinal meningitis is made by Fron and Uffreduzzi. They claim in every case to have found a micro organism which they believe to be the essential factor in the disease, and which is called by them *diplococcus lanceolatus*. It is identical with the salivary septic microbe of Pasteur, Strassburg, and Klein, as also by the *diplococcus pneumoniae* as described by Fraenkel. Very considerable progress has been made in the management of the gastro-intes-

tinal diseases of children—viz., by irrigation of the stomach dislodging the micro-organisms and destroying with germicides or antiseptics. Salicylate of bismuth is a remedy growing in favor. The State has not been visited by any wide-spread epidemic during the past twelve months except by la grippe. No treatment has probably surpassed acetanilide and salicylate of sodium, either combined or separate, followed by a few doses of quinine after the acute symptoms have subsided, especially was this suitable in neuralgic and myalgic types of the disease.

THE TREATMENT OF LUPUS BY METHYLINE

was the subject treated of by M. F. CROOMES, of Louisville. He reported three cases which were successfully treated by from one to thirty applications. He used the application every morning, which formed a thin coating over the lupus. The patient was well in thirty-five days.

RACHITIS IS INFANTALIS

was discussed by DR. J. A. LARABEE, of Louisville. He thought the ammoniated citrate of iron in a bitter infusion was better than the ingestion of phosphates. This disease is closely related to an acid condition of the *prima via*, and it is very necessary to correct this.

An interesting report on

DISEASES OF THE RECTUM

was made by DR. J. M. MATTHEWS, of Louisville.

Report on

BRAIN SURGERY

by DR. W. L. RODMAN, of Louisville.

CYSTIC goitres do not, as a rule, yield to constitutional treatment. Solid tumors ought first to be treated by the administration of full doses of iodide of potassium, and if no marked diminution in the size of the tumor follows this treatment within a couple of weeks, then it should be discontinued and surgical interference resorted to.—*Wyeth*.

CAUSES OF NORMAL VARIATIONS IN THE CHEST SIGNS.—It is accepted by physical diagnosticians that the larger size of the right bronchus accounts for the increase of vocal resonance and tactile fremitus, both being due to the same cause—increased transmission of the voice sounds. As to the reason of the higher-pitched percussion-note at the right apex there is less clear and united opinion. The note at the left apex ought, if anything, be the higher pitched; the explanations of the contrary conditions existing are not satisfactory. One explanation is that the liver at the base of the right lung deadens the wave sounds from the tissue above, while the hollow viscus, the stomach, serves more as a sounding-board for the left lung. The degree of tension of the thoracic parietes and of the lung tissue itself may account for it, as the greater the tension, the higher the pitch.

In conclusion, we would repeat:

That higher pitched percussion note, increased vocal resonance and tactile fremitus are normal at the apex of the right lung as compared with the left; that this normal condition can occur in such a number of cases and to such a degree as to cause in many instances a diagnosis of consolidation at the right apex; that finally, in deciding doubtful cases, other signs besides these three are necessary to formulate a diagnosis; continued observation of cases where other signs are lacking being necessary to watch the possible development of actual disease.—*Univ. Med. Mag.*

The Times and Register

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PROFESSIONAL BUSINESS.

IN England there are laws to protect physicians in their rights, and there are men of stamina enough to stand up and fight for their rights, as will be seen by the following extract from the *Hospital Gazette*:

I hear that, on Wednesday last, the Medical Defence Union succeeded in recovering two penalties, of £20 each, under the Apothecaries Act, from an irregular practitioner who advertised, under the name of Du Voy, to cure "nervous debility," and other complaints. This, I believe, is the second time that this man has been successfully sued by the Medical Defence Union. A few more penalties and Du Voy will doubtless turn his attention to other pursuits. I would suggest to the Defence Union that "Dr." Bell, of Wardour street, and "Dr." Hamilton, of Oxford street, should also receive attention. The Apothecaries Act surely applies in their case as well as in Du Voy's.

Here our laws allow the newspapers to be filled with the advertisements of all manner of quacks, who plunder the people with impunity, reaping golden harvests, while the members of the regular profession find it is becoming constantly more difficult to earn a living by the practice of medicine. The fact is that we are becoming cramped by overcrowding. Elbow-room is wanting. Many men of high professional attainments and moral standing subsist in more or less genteel indigence. Some few—very few—are tempted to fall into ways that will not bear the light. Here and there some one will throw off the trammels of professional etiquette and conduct himself on business rather than professional principles; and, while his colleagues shake their heads, his pecuniary success assures him oblivion of infractions of the code—unless they have been altogether too glaring. But even this deviation from the highest professional standing is unnecessary if only we had the courage to insist upon our rights. The

time has gone by when physicians could afford to let things take their course, and go along in that easy-going way that is a little bit professional etiquette and a good deal indolence, or, at least, unwillingness to get down to the prosaic matter of balancing income and outgo. The struggle for existence is present with the physician as well as with the layman, and however congenial it may be to one's tastes to be absorbed in pathological studies, the necessities of life imperatively demand attention. The remedy for the present state of affairs is easily to be seen. In spite of the overcrowding there is work enough and income enough for us all, if only we can get it. But the province of the practising physician is being usurped by outsiders and monopolized by greedy individuals in our own ranks. The hospitals and dispensaries treat hundreds of thousands of cases that have no shadow of right to medical charity. They advertise for patients, go around from house to house soliciting the privilege of attending people free who are quite able to pay. If the chromo has not yet been given with each prescription, it is only because no one has yet thought of it.

What the dispensary leaves is largely taken in by the retail druggist. We do not wish to inaugurate a crusade against these gentlemen. We believe the great majority of them are upright and honorable; and that if it were possible for all to give up the practice of medicine, they would willingly agree to do so. Besides, it is not possible to draw the line unless the law absolutely prohibits the dispensing of medicine without the physician's prescription. But when the retailer goes so far beyond his province as to advertise his illegal practice in the street cars, it is time to pay him some attention. We do not find the names of Mr. Evans and Mr. Loder on the register of physicians, but we read in the cars their advice to "prepare for the grippe" by taking quinine, which they obligingly offer at a very low rate. Furthermore, when Mr. John Ogden recommends people suffering from nervous debility to call at his store and get a bottle of his wine of coca and cinchona, we are tempted to ask, "If this is not practising medicine, what is it?" It is bad enough to have the manufacturer placard the city with his advertisements; but when the retailers enter the field, it becomes intolerable. Is it possible that we, as physicians, can be so blind to our interests as to allow our prescriptions to go to these men? By so doing we give the sanction of our names to the people who are openly appropriating our means of livelihood. It is time we awoke from this lethargy and made some effort to remedy the evil. Even with those of our profession who are beyond the necessity of caring personally for practice, a fellow-feeling for their junior brethren should induce them to interest themselves on their behalf. If it is to be a question whether the druggist or the doctor does the work, let the fight be conducted openly and fairly, instead of having half of our members helping the enemy to rob the other half. There are plenty of good retail pharmacists to be found, and a little care on our part in avoiding the advertisers for medical practice would do much good.

Book Notices.

PRACTICAL POINTS IN THE MANAGEMENT OF THE DISEASES OF CHILDREN. By I. N. LOVE, M.D. Paper. Price, 25 cents. Pp. 140. Issued in the Physicians' Leisure Library. Detroit, Mich.: Geo. S. Davis, 1891.

The book is just what the title would indicate, "Practical Points," and deals, as might be expected, almost wholly in treatment. The volume is evidently the outcome of considerable practical experience, and, although unpretentious, a perusal of its pages will more than repay the reader.

SURGICAL BACTERIOLOGY. By N. SENN, M.D., Ph. D., Professor in Rush Medical College, etc., etc. Second edition. Pp. 275. Philadelphia: Lea Brothers & Co., 1891.

The warm praises which have already been bestowed upon this book insure an eager welcome for the second edition, which has been rendered necessary by the speedy exhaustion of the first. In the preparation of this volume the author has added some new facts, illustrative of the relation of pathogenic micro organisms to surgical lesions; divided the book into chapters, and inserted eight new illustrations of micro organisms not before illustrated.

LEONARD'S MATERIA MEDICA AND THERAPEUTICS. A brief resumé of the action and dose of all official and non-official drugs now in common use. By HENRI LEONARD, A M., M.D. Price, \$1.00. Pp. 300. Detroit, Mich.: Illustrated Medical Journal Co.

To the student and to the practitioner for whom this book is designed, it will prove a most valuable guide, as it is compiled from the latest and best sources of information. The arrangement is original. The scheme embracing the Pronunciation, Genitive Case, Ending, Common Name, Dose, and Metric Dose. Then follow the Synonyms—English, French, and German—the Action, Uses, Antagonists, Synergists, Incompatibles, Antidotes; then the Minimum and Maximum Dose, and the Preparations, which are based, as far as possible, on the United States Dispensatory. The book is a condensed compilation of facts, and is far more complete than any volume of its kind before published, including all of the newer remedies—some of them as late as 1891—which deserve notice. There is no index, the drugs being arranged alphabetically.

We have had the pleasure of examining some of the compendious dictionary now being issued by the the Appletons, and edited by F. P. Foster. It is simply immense—in size. No other medical dictionary can compare with it in copiousness; and even the latest edition of Webster can hide his diminished head. It should find a place upon the shelves of every public medical library, and in every medical journal sanctum. Men who write, to whom money is no special object, may also subscribe for it; and, if this class is sufficiently numerous, the publishers may succeed in getting back their money. But that any practitioner in medicine should spend \$36.00 for a thing so utterly useless to him is past belief, unless on the theory that our profession contains representatives of that class which is said to part from its money quickly. Gould's Dictionary covers every practical need of the physician.

The Medical Digest.

THE "SLOW FEVER" OF ARKANSAS.—Mason calls the attention of the profession to the so-called "slow fever" of this portion of the country. This disease, while occurring at all seasons of the year, more frequently prevails in the fall and winter. Its duration is usually from fifteen to thirty days or more. The symptoms appear to denote a malarial cause, but quinine has no beneficial effect, and, in fact, appears rather to aggravate the fever and to give rise to chills, which have been denominated "quinine rigors." The fever is associated with symptoms of enteritis, with slight tympanites. The temperature ranges from 100° to 104°, seldom falling below 100°. In every case there is slight headache and nausea, but no pain in any other portion of the body. Fowler's solution of arsenic, together with salicylic or carbolic acid, is most beneficial in controlling the symptoms. The etiology of the disease still remains *sub judice*.

—*Weekly Med. Rev.*, April 11, 1891.

DIGESTIVE FERMENTS IN SURGERY.—Morris suggests the practicability of employing some one of the digestive ferments to remove tough membranes of fibrinous lymph and coagula from abscess cavities. The possibility of the liquefaction of putrescible substances in wounds in this manner occurred to him while treating a crushed liver, in which large portions of the organ were sloughing, and was put in operation with happy results. Pepsin has been found to be the best material for this purpose, even better than trypsin or pancreatic extract. As a result of numerous experiments, it was determined that four grammes of pepsin dissolved in three hundred cubic centimeters of water, acidulated with one per cent. of hydrochloric acid and applied to one hundred grammes of the coagula at a temperature somewhat above 100° F., would liquefy the coagula in thirty-six minutes. Pancreatic extract used in alkaline solution, other factors being as in the pepsin experiment, required two hours and twenty-six minutes for liquefying the coagula, and at the end of that time little tough knots of fibrin still remained. Trypsin in alkaline solution, and used in the same proportions and under the same conditions as the pancreatic extract and the pepsin, required two hours and ten minutes for liquefying the one hundred grammes of coagula. From these experiments it seems that a ten per cent. solution of the best pepsin acidulated with one per cent. of hydrochloric acid, and heated to a temperature above 100° F. (not over 120° F.) will be proper for surgical purposes. The pepsin need not be employed until the patient has recovered from the effects of ether after an operation, and then the liquefying process can be attended to at leisure. The abscess cavity should be washed out with boiled water, for antiseptic solutions would interfere with the action of a digestive ferment. The patient then assuming a good position for holding the pepsin solution in the abscess cavity, he can receive the hot injection; and hot fomentations continued for an hour will promote the action of the ferment down below. Bad tissues sufficiently liquefied are washed out with boiled water, and the whole wound is then sterilized with peroxide of hydrogen, and prepared according to the surgical conception of neatness. The tuberculous abscess of hip-joint disease, with its tough lining membrane, has been satisfactorily treated in this way. Also a bladder containing muco-pus and blood clots from a severe catarrhal condition, was relieved by injecting

a solution of pepsin. The remedy has been of value in a large number of surgical operations with necrosis and fibrinous clots.

—*N. Y. Med. Jour.*, April 11, 1891.

THE "MCBURNIE POINT."—Gibbons thinks that the importance ascribed to the existence of the so-called "McBurnie Point" is largely overestimated by those who have written upon the subject. In all inflammations of the abdominal organs pressure made by the tip or tips of the fingers over the abdominal walls elicits pain, while pressure made by the flat hand will, on the contrary, relieve pain. The only exception to this rule will be found to exist in peritonitis, where pressure of *any kind* will *immediately* bring responsive warning that pain has been produced. The finger-point pressure upon the abdominal muscles will, in most cases, not cause pain until the pressure has been severe, or so deeply applied as to put the muscle on the *stretch*. The exceptions here noticed are to be found when the pressure is applied at, or near, or upon its tendinous or fibrous elements. Even in healthy muscles there is animate resistance to pressure of a character assuming the pointed means, so that it is necessary, and is laid down, as a rule, in works teaching medical diagnosis to be careful in palpating the abdominal organs, to lay the open hand gently upon the walls before applying the pressure necessary to make them give way, which they will not do if one is careless about this rule. Dr. McBurnie claims to have found severe pain on pressure at a point midway between the anterior superior spine of the ilium and the umbilicus, but it is not certain as yet that this has any diagnostic value as a "point" especially referable to an inflamed or suppurating condition of the *vermiform appendix*. It is, without a doubt, found in all these cases, and previous to general involvement of the peritoneum and its contained organs, this point can be demonstrated at various places over the right half of the abdomen, and, as the general involvement takes place, at more remote parts of the abdominal wall. The reasons for finding it at the special point where Dr. McBurnie looks for it is that at this location there is a much greater expanse of fibrous tissue than at any other near-by point of the actual seat of inflammation, and further, because just at this place we have several quite large sensory nerve filaments distributed to the neighboring parts. Gibbons says that the "McBurnie Point" may be found at any location throughout the body where, with point pressure, muscle structure in septic or inflamed condition is put upon the stretch. This is more easily found at points where tendinous elements enter into the muscle structure, and finally at the complete tendinous structure, characteristic pain is very quickly elicited as soon as the parts are made tense.

—*N. Y. Med. Jour.*, April 18, 1891.

THE LOCAL THERAPEUTICS OF DISEASES OF THE NOSE AND THROAT.—Wendell Phillips is decidedly in favor of conservative surgical procedures in a large proportion of the cases of chronic catarrh. The influence of drugs properly applied is of great value in the management of these cases. Aqueous solutions, especially sprays, are used far less than formerly, because their place has been filled by better remedies. The most important exception to this rule is the peroxide of hydrogen, which, in addition to other qualities, is especially useful in the softening and removal of inspissated crusts, and for cleansing open sores and cut surfaces. Great good will result in all

operative cases from careful after-treatment, and here is where the peroxide of hydrogen is of inestimable value. The various products of petroleum that can now be obtained in liquid form have taken the place of the aqueous solutions formerly so much used. They are palatable, non-irritating, and capable of carrying many needed remedies in solution. They are soothing to mucous surfaces, may be used warm or cold, and never clog the spray-tube. They may be made antiseptic to some degree by the addition of gum benzoin. On account of their oily properties they remain on the surface of the membrane for some time, during which they not only protect the membrane from atmospheric influences, but give to it whatever remedy they may contain. Menthol, eucalyptol, oil of eucalyptus, cocaine, terebene, thymol, carbolic acid, camphor, iodine, oil of gaultheria, tar, iodoform and aristol may be dissolved in liquid petroleum and used as sprays. Menthol should not be used in a proportion to exceed twenty grains to the ounce, and ordinarily ten grains to the ounce will suffice. Eucalyptol is preferable to the oil of eucalyptus. It is less irritating, pleasanter to the taste, and can be used in smaller quantities. It should never be used stronger than half a drachm to the ounce, and the oil of eucalyptus not stronger than a drachm to the ounce. Terebene may be used in the proportion of twenty grains to the ounce. Carbolic acid and iodine, of each one grain to the ounce, is sufficient for cases requiring these drugs, and thymol may be used ten to twenty grains to the ounce. A solution of aristol, thirty grains to the ounce of benzoin, is of service in atrophic rhinitis with ozæna and in specific rhinitis. The aluminium aceto tartrate in a twelve per cent. solution is of value in chronic hypertrophic rhinitis and to arrest hemorrhage after operations.

—*Medical Record*, April 11, 1891.

NOTES FROM FRANCE.

THE Academy of Medicine terminated the discussion on the depopulation of France rather unexpectedly. They advised several measures aimed at the causes of infanticide and abortion; such as secret bureaus of assistance for women during the later months of pregnancy, and means for assuring secrecy of accouchements. By a vote practically unanimous, the Academy voted in favor of obligatory vaccination and revaccination.

MICROCIDINE is a new antiseptic proposed by Berlioz. If one adds to beta-naphthol, brought to the melting point, half of its weight of caustic soda, and allows it to cool, a whitish powder is obtained; consisting of soda-naphtholate and naphtholic and phenolic compounds. This powder is soluble in water, in the proportion of one to three; the concentrated solution is brown; weaker solutions (3 to 1,000) colorless. Microcidine has very great antiseptic power; its toxicity is very feeble; it is not caustic; it does not affect instruments or linen. Its antiseptic power is below bichloride and naphthol, but is about ten times greater than that of phenic acid, and twenty times that of boric acid. It is antipyretic, and is eliminated by the urine.

M. Polaillon has employed it in 3-1,000 solution as a lotion for wounds; after washing with pledgets of absorbent cotton dipped in it, he applies tarlatan soaked therein; then gummy taffeta, wool, and a bandage. He has thus obtained rapid cures of leg ulcers, and of suppurating wounds. In recent wounds the use of microcidine prevents suppuration equally with phenic or naphtholic solutions.

LE DENTU found, in a calculous kidney, a collection of gas. The patient was a child eight years old. An exploratory puncture was made, and half a liter of greenish pus, rich in leucocytes, was drawn off. Then came the gas; that was collected and analyzed. One half its bulk consisted of oxygen; three-eighths nitrogen; one-sixteenth carbonic acid. The autopsy showed a cystic kidney, with no communication between it and the bowel.

LAVERAN recommends for hypodermic use:

R.—Quininae monochloridi gr. xv.
Alcohol, 60° gr. xlv.
Aque destillat. gr. xc.

M. Add a few drops of hydrochloric acid if necessary to procure solution.

The injections are not painful, but must be numerous.—*Revue de Ther. Med. Chir.*

THE *Annales d'Orthopedie* gives a warning against the abuse of gymnastic exercises that threatens to follow their total neglect in France. These exercises should be directed by those who have a knowledge of anatomy and physiology, and are capable of suiting the work to the needs of each pupil.

M. GALIPPE has examined a number of cataractous lenses, with the view of ascertaining if the changes can be attributed to micro-organisms. The lenses were obtained from operations conducted with the most absolute antisepsis; and were placed in various culture fluids. All did not give positive results, but in all cases where positive results were obtained, the same micro organism was found, and no other. This was a very small diplococcus. Old chalky lenses, of many years' blindness, always yielded an organism closely resembling that just described.

—*Bull. de l'Acad. de Méd.*

NETTER states, as the result of experiments on guinea-pigs, that most sero-fibrinous pleurisies are tuberculous; and that the prognosis in all such cases should be guarded. However, he adds, all such subjects are not necessarily doomed to become tuberculous, as this disease is often curable; especially in its manifestations in the serous membranes.

CHAUFFEND finds that the investing membrane, or parent cell-wall, of hydatid cysts, is a perfect natural filter for microbes; while it permits the passage of mineral salts in solution. Even in suppurating cysts there are no germs, unless the sequence of pericystic suppuration.

CASTELLAN reports 33 cases of gonorrhœa treated by means of injections of 1 per cent. solution of bicarbonate of soda. All were cured within twenty days.

O'BRIEN claims to cure in eight days, by injections of warm sea water, repeated eight times daily.

KAPOUSKINE has discovered phosphogene, chlorine and other dangerous vapors in the air of a room where chloroform had been administered while gas was burning. It is probable that respiratory irritations are often caused by the vapors produced thus, in the operator and assistants, as well as in the patient. This can be remedied by the use of electric lights.

ADAMKIEWICZ claims to have discovered a remedy for cancer. This is introduced into the blood; destroys the cancer germs, causes necrosis of the primary foyers, and the disappearance of the tumor. The announcement has been received in Paris with skepticism.

MORAS applies a plate of zinc to the surface of wounds; this is renewed in six days; and even the most rebellious ulcers are thus cured in six weeks.

YOUNG people who are meager and narrow-chested, are treated by Jenks by hot baths; with asserted benefit.—*Revue de Thér.*

COCAINE INTRADERMICALLY.—Magitot read before the Académie de Médecine a paper upon the use of cocaine as a local analgesic, in which he arrives at the following conclusions:

1. Cocaine is an excellent local analgesic, whose use should not be discouraged without serious reason.

2. Its application requires certain precautions that are of the highest importance.

3. The dose should be proportional to the extent of surface to be analgesized; and should not exceed in any case $1\frac{1}{4}$ to $1\frac{1}{2}$ grains, even for extensive surface operations.

4. Cocaine should not be employed in cardiac cases, in chronic affections of the respiratory passages, or with neuropathics. This applies also to the majority of the anæsthetics.

5. Cocaine should be injected into, but not under, the skin or mucosa. This avoids the danger of throwing the injection into a vein; which has been done.

6. The injection should be made when the patient is lying down unless the operation is on the head.

7. The cocaine should be absolutely pure.

8. The dose should be fractioned, so that the first partial injection should be followed by an interval of some minutes. This allows time for observing toxic effects; that occur at once, if at all.

9. Thus employed, cocaine possesses great advantages over the anæsthetics; the absence of general effects, of an excitation stage, and of loss of consciousness; while it allows the operator to dispense with an assistant.

10. The duration of cocaine-anæsthesia is sufficient to permit of any of the operations of ordinary surgery.

LOCAL TUBERCULOSIS.—Boursier reports a cure of white swelling by injections of iodoform and olive oil. Both wrists and both ankles were affected.

Courtin employs with success the following as an injection into tuberculous glands:

R.—Naphthol-beta 3ijss.
Camphor,
Alcohol, 60° āā 3x.

Mix, filter, and preserve in sterilized flasks, with glass stopper.

—*Jour. Méd. de Bordeaux.*

CAUSATION OF TYPHOID FEVER.—Destree found the bacillus of Eberth in the water of a well that had been used by a family among whom repeated attacks of typhoid fever had occurred. This water had been examined chemically, and gave no indication of impurity. In studying an epidemic of typhoid localized in one quarter of Brussels, he found that the outbreak followed the inundation of this section, whereby much filth had been washed into the wells. These wells, deriving their water from the subsoil of the city, were responsible for 91 per cent. of the fifty-two cases. In one other case, a girl who drank only city water, the well-water was employed for washing dishes and other domestic purposes; and the girl lodged in a cellar that was inundated by the flood. In six cases, in which it was not possible to trace the origin to drinking-water, the contagion through soiled linen and fecal matter was demonstrated. These were persons who attended typhoid cases.

—*Jour. de Méd. de Bruxelles.*

SYPHILIS AND GENERAL PARESIS.—Morel Lavallée observes that the proportion of syphilitics attacked by other forms of mental alienation is much less than with general paretics. Paralytic dementia is rare where syphilis is exceptional; as, for instance, in Ireland. It is rare among women, especially married women; but Trélat has observed that among paretic young women a large proportion are prostitutes. The frequency of syphilitic antecedents among paretics is greater in proportion to the capacity for amnesia. This has been demonstrated by Reinhard.

—*Jour. de Méd. de Bruxelles.*

IODOPYRINE.—This drug, which is antipyrine with one atom of hydrogen replaced by iodine, has been studied by Muenz. It crystallizes in colorless, prismatic needles. It is slightly soluble in cold water or alcohol, more soluble in either if hot. It has neither odor nor taste, and fuses at 160° C. It is antiseptic, equally with antipyrine. In doses of $7\frac{1}{2}$ to 22½ grains it depresses the temperature, with sweating, but without collapse, or rigors at the return to the previous temperature. The pulse and respiration are affected equally. In the stomach, iodypyrine is decomposed into iodine and antipyrine.

—*Pharm. Zeitsche. f. Russl.*

DOSES OF ANTIPYRETICS FOR CHILDREN:

	2 to 4 yrs.	5 to 10 yrs.	11 to 15 yrs.
Salicylate of soda, daily dose of.	$7\frac{1}{2}$ to 15 grs.	15 to 30 grs.	$37\frac{1}{2}$ to 45 grs.
Salol, 3 or 4 doses daily of.....	$3\frac{3}{4}$ " 5 "	$7\frac{1}{2}$ " 11 "	11 " 15 "
Sulphate of thalline, every 2 hours.....	1-7 " "	2-7 " "	3-7 " 5-7 "
Antipyrine, 2 or 3 doses daily of.	3 " 6 "	$7\frac{1}{2}$ " 11 "	12 " 15 "
Salts of quinine, single dose of.	3 " 6 "	$7\frac{1}{2}$ " 11 "	11 " 15 "
Antifebrine, 1 to 3 doses daily of.	$3\frac{1}{2}$ " 1½ "	$1\frac{1}{2}$ " 3 "	3 " 4½ "
Phenacetine, single dose of.....	$1\frac{1}{2}$ " 3 "	3 " $7\frac{1}{2}$ "	$7\frac{1}{2}$ " "

—Demme, *Pharm. Zeitung.*

INFLUENCE OF SOME ELEMENTS OF WINE UPON PEPTIC DIGESTION.—Hugouneng (*Jour. de Pharm. et de Chiru.*) arrives at the following conclusions, after a series of experimental observations:

1. All wines, without exception, interfere with the action of pepsin; those most charged with coloring matter—alcohol, cream of tartar—are most injurious.
2. These three ingredients of natural wine operate together to check or arrest peptic digestion.
3. The acid of new wines is powerless to provoke the action of pepsin.
4. Among coloring matters fraudulently introduced into wine, methylene blue, azoflavine, solid blue, and especially fuchsine, hinder peptic digestion. The vegetable colors, black mallow, elder, maqui, like œnoline, exercise an injurious action.
5. In suppressing part of the cream of tartar, platrage takes from the natural wine an element that lessens the action of pepsine, *in vitro*. Hence, the use of wines so treated is to be preferred, so far as the effect on digestion is concerned.

RESOPYRINE.—When solutions of antipyrine and resorcine are mixed, there is an abundant white precipitate, in the midst of which appear oily drops. On shaking, these augment and form a mass, gluey, vitreous, heavy, adhering to the vessel. Continuing the agitation, the mass suddenly becomes of a remarkable hardness, forming a white, opaque compound. An alcoholic solution yields on evaporation handsome white crystals, oblique prisms with rhombic bases, pyramids on the bases. No odor; very feeble piquant taste; insoluble in water; soluble in 100 parts ether, 30 parts chloroform, 5 parts alcohol

and ether, equal parts. The alcoholic solution is not precipitated by a large addition of water.

—*Jour. de Pharm. et de Chiru.*

VERY little common-sense appears to be awarded to provincial justices in general, and to that of Sarraon in particular. The village priest, in an emergency, performed the Cæsarean section upon a woman just dead, and thus saved her child. He was fined fifteen francs for the illegal practice of medicine!

FRENCH NOTES.

A. E. ROUSSEL, M. D.

STATISTICS OF CHLOROFORMIZATIONS.—At a meeting of the German Surgical Congress M. Gault, of Berlin, gave a resumé of the reports of 60 of the members from July 1 to December 31, 1890. Of the 60 members in question we note 3 Austrians, 3 Russians, 2 Swedes, 1 Belgian, and 1 from Holland; the others were Germans. This gives a total of 24,625 narcoses. Bardeleben, who has already reported his statistics of 12,000 narcoses made at the Charité from 1878 to 1890, counts 7 cases of death. The 24,625 narcoses are divided as follows:

22,656 narcoses by chloroform,	with 71 asphyxies and 6 deaths.
470 " " ether	0 " " 0 "
1,055 " " mixed (eth. & chl.)	5 " " 0 "
417 " " (eth. & alc.)	4 " " 0 "
27 " " bromide of ethyl,	0 " " 0 "

Consequently:

of 3,776 narcoses by chloroform,	1 death.
319 " " "	1 case of asphyxia.
211 " " eth. and chl.,	1 " " "
104 " " eth. and alc.,	1 " " "

In the majority of the cases there was employed chloral, chloroform and the mask of Eschmarch. In 2,732 narcoses the duration was one hour, in 278 cases the period of time was longer, in 3 cases the duration was 150, 155, and 180 minutes. At the Charité 1 cm. c. of chloroform is used for each minute of anaesthesia. According to Morian, the quantity of chloroform employed is 0.6, with the apparatus of Kappeler, and 1 gr. with the ordinary apparatus. In a private clinic 25 grains of chloroform were used each time. The maximum doses were 180 and 150 cm. c. The mixture was composed of 100 parts of chloroform, 30 parts of alcohol, 30 of ether. Injections of morphine have also been employed at the same time as the chloroform.

Some of the operators used morphine in cases of alcoholics, in operations of long duration, or in those involving the mouth. Five surgeons use morphine in all cases above 15 years of age. Fourteen have used morphine 2,194 times out of 6,806 cases.

Of 307 cases we count on an average 1 case of asphyxia which responds to treatment, but requires each time the performance of tracheotomy; 6 cases of death may be attributed to the chloroform; 3 other cases were due to the entrance of air into the veins, to syncope, etc., and should not be counted as a result of the chloroform.—*La Tribune Médicale.*

ABLATION OF ARM, WITHOUT SHOCK OR HEMORRHAGE.—A switchman in a retired part of one of the yards of the Chicago and Northwestern railroad picked up the arm of a man which had been crushed off at the shoulder joint and having on it a shirt sleeve. Diligent search was made for the owner of the lost member, but nowhere could he be found, nor could any clue to the accident be discovered. Five days after the accident the police found the man at Clyborn, five miles from the scene of the injury, ex-

hibiting his mutilated shoulder in proof of his arm having been cut off by a train. This exhibition he had made in twenty or thirty saloons for the purpose of obtaining whiskey. During all the time no dressing had been applied, or any vessels tied. He was sent to a hospital and recovered perfectly. On examination it was found that the arm had been torn out of its socket, leaving the other elements of the shoulder, the clavicle and scapula, intact.

The forcible ablation of an arm has often occurred by machinery without any serious loss of blood, but the shock usually renders the patient helpless, and the surgeon invariably feels it his duty to ligate the crushed vessels. The marvel, however, in this case, was in the ability of the man to travel about for five days, realizing neither shock nor bleeding. It is not improbable that had one or two days more elapsed without a dressing, fatal bleeding would have ensued from sloughing of the crushed vessels, such sloughing often being delayed as late as the seventh day.

—D. Hayes Agnew, *Univ. Med. Mag.*

CONDURANGO AND CONDURANGIN.—The following are the conclusions formulated by Dr. Guenot as a result of a series of experiments made to test the therapeutic value of these substances:

1. Condurango employed in the form of a powder appears to be remarkably efficacious in painful affections of the stomach, and especially in the case of gastric ulcer and irritation of the gastric mucous membrane.

2. Cases of cancer of the stomach, which have been claimed to be cured as the result of treatment with condurango, are certainly to be regarded as errors in diagnosis. In all probability the majority of them were cases of ulcerative gastritis.

3. Condurangin possesses an extremely curious and interesting action. It causes a veritable locomotor ataxia, which is due, without doubt, in view of its late appearance, to the formation of some toxic substance produced by the splitting up of condurangin in the organism.

4. In view of the fact that the chemical nature of condurangin is not yet thoroughly established, and its physiological action not being thoroughly understood, the bark of condurango should be employed in therapeutics, and not condurangin.—*Therapeutic Gazette.*

COCAINISM.—The chief facts about cocaine in relation to cocaineism are thus summarized:

1. It is the acutest and most absolute destroyer of inhibition, and of the moral sense generally, that we yet know.

2. The morbid craving is very intense, and control is absent.

3. The dose requires to be increased faster than that of any other such drug to get the same effect.

4. The delirium and hallucinations of all the senses of single doses become chronic in cocaineism.

5. Its immediate effects are more transient than those of any other such drug, but this does not apply to the craving set up.

6. The treatment of cocaineism consists in outside control of the patient, in stopping the drug at once, in careful watching, nursing, the use of every sort of food that will keep up the strength, and of the bromide of ammonium, brandy and wine, tea and coffee, and possibly a hypnotic, like paraldehyde or sulfonal, for two or three nights at least.

7. A patient suffering from cocaineism can be usually certified as insane so far as the presence of delusions are concerned, but he gets over these so soon,

and yet is so far from real cure, that certification and sending to an asylum is not a satisfactory process altogether. We need cocaineism included in any special legislation for dipsomania.

The writer also considers among morbid cravings and paralyzed control masturbation, sexual perversion, morbid indecision, etc., and finally sums up the whole subject as follows:

1. That many morbid and hurtful uncontrollable cravings exist apart from those for drink, morphine, chloral, or cocaine.

2. That there is a distinct class of "inhibitory neuroses" that may be accompanied by little intellectual or emotional disturbance. The objects of the morbid cravings are often accidental.

3. Some of the most morbid cravings and examples of loss of control are found connected with the reproductive function, in regard to which, too, perversions of object are also very apt to accompany such morbid cravings.

4. For the existence of many cases of such reproductive loss of control, prostitution is probably responsible, and the unnatural habit of masturbation for many more.

5. The reproductive instinct is, in some cases, morbidly transformed into uncontrollable impulses toward suicide and homicide.

6. Cravings to break and destroy, accompanied by little intellectual disturbance, that cannot be controlled, are often met with.

7. The state of morbid inaction is often closely allied to morbid impulse, one sometimes taking the place of the other.

8. There are cases where there is a morbid loss of control over general conduct, in ordinary matters, and cravings to do quite harmless acts.

9. There is a morbid condition of brain automatism, apart from hypnotism, in which there is little or no power of inhibition, but at the same time no active cravings, the conduct being regulated by the will of others, or by chance suggestion from without or within.

10. Loss of control often precedes, for some time, the other mental symptoms of an attack of active insanity.

11. Inhibition may be lost in one direction only, while in most others it may be very strong—gambling being often an example of this.

12. All brains must have some "excitement" to keep them healthy, the important question being how to select the kind of excitement that will not lead to morbid craving, and that can be easily controlled.

13. Morbid indecision may be an example of paralyzed control.

14. We may have morbid and uncontrollable muscular action, not purposive, and not attended by ideation or emotion at all.

15. It is a fact in man's medical psychology that control is almost always lessened at night or in the darkness as compared with the day, the night being the time for morbid indecisions, fears, superstitions, and a tendency to mistake the subjective for the objective, his higher powers then undergoing a process of partial "dissolution." Man, in fact, is a less evolved being as regards his inhibition at night than during the day, and his brain is then more liable to disturbance of the controlling functions in disease.

—*Quar. Jour. Inebriety.*

JOHN B. DEEVER in the *Annals of Surgery* gives the following indications for trephining:

1. Simple depressed fracture with or without brain symptoms.
2. Compound depressed fracture with or without brain symptoms.
3. Impacted fracture, simple or compound, with or without brain symptoms.
4. Comminuted fracture, simple or compound, with or without brain symptoms.
5. Compound fissured fracture with depression of bone without brain symptoms.
6. Compound fissured fracture with depression of bone with brain symptoms.
7. Compound fissured fractures without depression of bone and without brain symptoms in which there is bleeding through the fissure or fissures.
8. All punctured, incised and gunshot fractures.

CHLORALISM.—Chloralism for a time threatened to become a rife craving, but chloral is becoming less liked and used than it was at one time, and will be numbered largely with superseded drugs. Chloral differs from other drugs for which there is craving, and from alcohol, in this essentially, that its effect is not stimulant in any dose, small or large, but simply and only sedative and hypnotic. It creates no ideal state of mind; it simply produces forgetfulness and sleep. A craving for it, or a habit of it, is, therefore, a strange and altogether abnormal thing. Why any human body should crave a drug whose taste is disagreeable to produce sleep in excess of the normal time, is entirely inexplicable on any hypothesis except that which attributes an essential affinity between the brain and nervous action, not only to alcohol, but to all classes of stimulant, sedative, and hypnotic drugs.—*Quar. Jour. Inebriety*.

IGNI PUNCTURE FOR HYPERTROPHIED TONSILS.—The main indications for reduction of tonsils by galvanic cautery might be summarized as follows:

1. When tonsils have ceased to perform their function by reason of interstitial thickening and occlusion of the lacunæ of the glands, in which condition the mouths of the crypts becoming blocked with the accumulation of sebaceous matter, which rapidly decomposes, they form an excellent culture medium for various pathogenic germs which may ultimately be absorbed into the lymphatic system.
2. When a tonsil shows itself competent at short intervals to become inflamed and give rise to peritonsillar abscess.
3. Where the tonsil is so situated that it is a matter of great difficulty as well as danger to use the tonsillotome, and from extensive adhesion of the pillars, likely to cause severe hemorrhage by their being cut.
4. In all cases where the patient is of a hemorrhagic diathesis or in other cases in which alarming hemorrhage is feared.
5. Where patients will not consent to the use of the knife and yet the demand for the removal of the gland is imperative.—Cullen, *Cincin. Med. Jour.*

PURPURA HEMORRHAGICA RHEUMATICA.—Male, aged twenty-six, came under care about ten weeks ago for an attack of rheumatism. Family history good, except that his father died of epithelioma of the lip. In the course of the last ten weeks his entire body has been covered with hemorrhagic spots. The throat and conjunctiva are involved, but no other mucous membrane, except, perhaps the genito-urinary tract, but as he has taken turpentine to the

point of strangury, the blood in the urine may be due to that cause and not to any purpuric manifestation in the genito-urinary tract. His gums have been firm, and appetite good throughout the attack, which has been in his favor. He has taken, during the last ten weeks, gallic acid, iron, ergot, turpentine, etc., and at times he would seem to improve, but in a day or two his body would become covered over again with a fresh crop of purpuric spots. The spots are smaller at this time than they have been heretofore. He had a patch on the right side some days ago, that was about five by ten inches in size, where a mustard plaster had been. In answer to inquiries, he said that the patient had not taken any antipyrine to his knowledge.

—Brinton, *Med. and Surg. Society, Baltimore*.

QUININE AMBLYOPIA.—J. A., aged thirty, presented himself for treatment with urethral stricture; he was ordered pil. quiniæ sulph. gr. ij, thrice daily after meals, preparatory to an urethral examination. He has incipient phthisis; physical examination in other respects was negative. He returned the day after the drug had been prescribed, stating that he could not take the pills, as they made him blind. Shortly after taking the first dose, he was unable to read the newspaper. He had been a moderate user of tobacco, but has not used it for some time on account of a pharyngitis, which is aggravated by its use. No history of alcoholic excess and no specific history exist. He was placed on restricted diet, all alcohol and tobacco were stopped, and he was kept under observation for two days, when a second prescription was ordered, and a second pill of quinine was administered with the same effect as the first, which symptoms disappeared in less than two hours. A third trial was made with the remedy, with the same effect, when the drug was stopped. Now, two weeks later, he has had no return of the symptom. The case is of interest as presenting an unusual idiosyncrasy to so small a dose of quinine.

—Joseph Leidy, Jr., *Uni. Med. Mag.*

TURPENTINE AS A GERMICIDE AND ANTISEPTIC.—Although the oil of turpentine (*Oleum Terebinthinæ*, U. S. P.) is not unknown as an antiseptic and germicide, its insolubility in water and its irritating properties have hitherto made its use impracticable. That it has its special uses, however, in this connection I have had abundant testimony.

It is a well-known fact among naturalists, that, if the air of a cabinet be impregnated with the vapor of turpentine, the specimens are safe from the ravages of moths and other intruders so long as this condition of the air of the cabinet remains.

Having learned the advantage of turpentine in preserving entomological specimens, I concluded to try its germicidal properties in the cases containing surgical instruments. A bacteriological examination of the cases, made four weeks afterward and compared with the examination of cases not provided with turpentine, convinced me of its efficiency, and I soon afterward applied the same principle to drawers containing towels, gauze, bandages, etc.

The method is simple. The turpentine is placed in flat, large-mouthed bottles at the bottom of each case or drawer, the volatility of the turpentine causing the vapor to impregnate the surrounding air.

Of late I have also placed my surgical instruments, the night preceding an operation, in a flat dish containing oil of turpentine. The instruments are completely sterilized, are not injured by the submersion,

and are easily dried by a piece of sterilized gauze or towel. The characteristic odor of turpentine can be removed by ether.

The cheapness of turpentine and the ease with which it may always be obtained, added to its special adaptability in preserving the aseptic condition of instruments, bandages, etc., by its vapor, may make it a valuable addition to the list of our antiseptics and germicides.

I have also used benzole in the above manner. Its greater volatility gives it a more rapid germicidal action than turpentine, but its great inflammability admonishes caution in its use.

—Schleppergrell, *Med. News*.

MORPHINOMANIA.—1. The habitual use of opium is in nine cases out of ten most injurious to the higher mental powers, and more especially impairs the volition.

2. The dose has to be steadily increased till such an amount is taken as tends to impair nutrition and the trophic energy of the brain, to disturb the appetite and whole alimentary system, and ultimately to destroy the power of natural sleep.

3. The craving set up by such excessive use of opium is one of the most persistent, intense and difficult to resist of any known morbid craving. It has no remission or periodicity in it.

4. The nervous constitution of the patient has very much to do with the inception of the habit. It may be said generally that persons of the nervous diathesis, of nervous or insane or drinkers' heredity, all persons who feel and dread pain excessively, and most "excitable" persons, are especially liable to acquire the craving.

5. Given or taken for insomnia or to relieve pain is the origin of most cases of morphinomania.

6. It behooves medical men to take the constitution of each individual patient carefully into consideration before opium is prescribed, and to ask, "Is there any danger of a habit being set up?"

7. As to the treatment of morphinomania the writer has little hesitation in laying down its principles. Help from without in the shape of skilled, strong nursing; control and never remitting companionship are needed in almost all cases. It is better and safer to undergo the short Hades of absolute stoppage than the more prolonged purgatory of tapering off. While this is being gone through, use the bromides, wines, every form of beef and peptonoids that the stomach or rectum will retain; bismuth, ice and counter-irritation for the gastric pain and vomiting; digitalis and strophanthus for weak and irregular heart's action. Paraldehyde or sulfonal should be used to obtain sleep, but their use should not be continued beyond a few nights. The great things to aim at are good nerve tone, firm muscles, a brown sunburnt skin, steady occupation, as much fat as can be put on, a sound moral sense all round, strengthened inhibition, and a dominating conviction that the drug is poison in any dose.—*Quar. Jour. Inebriety*.

ATROPHY OF THE UTERUS.—The patient is thirty-nine years of age. She has been married fifteen years, and is the mother of five children, the last one being born eleven months ago. With the exception of one miscarriage, which occurred five years ago, all her labors have been perfectly normal and of short duration, with the exception of the last one, which lasted eleven days.

This woman began menstruating in her eleventh year, and her menses have always been more or less

regular. The duration of the flow has been about three days, with pain commencing on the first day and ceasing when the flow became thoroughly established. The last menstruation was very profuse while it lasted, and then, all at once, it suddenly stopped. She also complains of pain over the lower part of the spine, has a headache of recent origin, and has developed considerable bearing down pains during the past month. The sudden stoppage of her menstrual flow she attributes to fright brought about by her child having fallen from a window and breaking his arm.

On making a digital examination of the uterus, I found an abnormal atrophy of the uterus, with a slight laceration of the cervix. I have seen her but once since last December, which is now four months ago, and the uterus has improved very markedly indeed under the treatment that was instituted at that time for her relief. The treatment employed in this case is, in my opinion, the best one suited for her condition, and the improvement that has been brought about in this direction has fully warranted us in its application. This treatment consists in local stimulation of the uterus, and the internal use of tonics in the form of some one of the many preparations of iron. The one I generally give for this condition is the plain tincture of the chloride of iron. This preparation, I believe, acts better, produces its effects quicker, and gives better tone to the system than any one I know of.

For the local treatment of this case I have employed a self-retaining stem, which was inserted into the uterine cavity. She has been wearing this stem for four months, and with very marked improvement. The form of stem I employ is the so-called galvanic stem, but I think the plain hard rubber one will suit this case just as well, if not better than the galvanic. It is the same kind of rubber stem that is employed in the treatment of dysmenorrhœa, or hyperplasia of the uterus, to promote drainage from the cavity, but in the case of atrophy of the uterus, strange to say, the very opposite effect is produced.

As I now examine this woman's uterus bi-manually, I find it a good deal more than one and three-quarters of an inch in depth, the size it was when she first came to the clinic for treatment, and though the function of menstruation has not as yet been restored, we have every reason to look for it in the very near future.

I wish, in this connection, to give you a few words of caution, in regard to the use of the stem in cases of atrophy of the uterus. The stem is not an instrument that can be always used with impunity in these cases, and when you insert it into the cavity of the uterus, you should do so with explicit instructions to the patient, that she is to present herself again at your office within a reasonable time, so that you may be able to determine whether the instrument is doing any harm or not; for irritation of the tubes is apt to result in a certain percentage of the cases treated by this method. This patient has not, however, observed the caution she has been given in this respect, and consequently has not done herself full justice in remaining so long a time away from observation.

In some of these cases of atrophy of the uterus direct galvanism, in the form of a galvanic battery, with the negative pole in the interior of the uterus, and the positive pole over the tubes, is also an excellent measure to employ. There is, however, one drawback to this mode of treatment, and that is that it is absolutely necessary for you to see the patient, while under treatment, three times a week, and spend

a considerable amount of time at each séance, a proceeding not applicable to patients who come to a public clinic like this.

I am quite frequently asked by physicians what line of treatment I would adopt in an unmarried lady, eighteen or twenty years of age, who was suffering from the same form of affection as this woman. I would do precisely the same as I have done in this case, as far as the technique of operation was concerned, but in order to introduce the stem into the uterine cavity, I would proceed in a somewhat different way. I would put the patient under ether, and use a very small Sims' speculum, which is known by the name of the virgin speculum. I have treated, in this way, a large number of unmarried ladies for dysmenorrhœa and atrophy of the uterus, with very marked success, and without inflicting any injury on the genitals whatever.

I wish to speak a few words with regard to the diagnosis of atrophy of the uterus in young ladies. A great many gynecologists are in the habit of introducing a sound into the cavity of the uterus to determine the depth of that organ, but I do not deem it at all necessary to resort to such a procedure as this, for very serious trouble may sometimes follow its use. By educating your fingers to the delicate sense of touch, as every physician should do, you can always arrive at a very precise diagnosis of the condition of the uterus. By means of bi-manual palpation, with the index finger of one hand in the rectum and the other hand over the anterior abdominal wall, you can map out the exact position of the uterus in the pelvic cavity, its exact size, as well as the size of the ovaries and tubes. This is a much safer way than the introduction of a sound into the cavity of the uterus to determine the depth of the organ.

—Sims, *Int. Jour. Surgery*.

HOW TO SCARIFY OR OPEN AN ABSCESS OF THE TONSILS.—In many of the severe cases of parenchymatous inflammation of the tonsils, especially in children, the neighboring parts are so swollen and painful that the patient is unable to open the mouth so the surgeon can see to safely manipulate a bistoury to scarify the parts, or open an abscess, if suppuration has occurred.

While many of these cases may be cut short, by proper topical and constitutional treatment, if instituted early in the attack, yet, in those cases where there is a great degree of swelling, distress, and difficult respiration and deglutition, great relief can be quickly given by scarifying the swollen tonsils, or, if there be an abscess, to incise the tonsil and let out the pus.

The best mode and means of performing these scarifications or incisions is as follows:

1. If the patient can gargle, let him use a moderately strong solution of bromide potash, *hot* as can be borne, for several minutes, to gargle the throat. Then the surgeon should pass his naked index finger into the pharynx, and, by palpation, determine whether he will scarify or incise the tonsil.

If it is decided to either scarify or incise the tonsil, then arm the index finger with Wenck's amniontome, pushing the instrument well up on the finger, so its cutting point is just protected by the tip of the finger when the finger is straight, but so the point of the instrument will project a little if the finger be slightly flexed near its tip, then carefully slip the straight armed finger back until the most prominent

part of the swollen tonsil is felt, then slightly press and flex the tip of the finger, and thus make several superficial scratches, if scarification is intended; or, if incision for pus is desired, then one stroke, with more firm, steady pressure, should be made in the most prominent part of the tonsil.

—Smith, *Texas Courier*.

FOR ECZEMA AND HERPES.—RHUS POISONING.—In herpes circinatus and capitis, as well as in eczema simplex and eczema impetigi nodes (after removal of the crust with some emollient application) I have been using for a number of years one or other of the following prescriptions, with invariable success, and have come to regard them as almost specifics.

No. 1.

R.—Acid acetic..... ʒvij.
Water..... ʒj.
Hydrarg. ammon. q. s. to saturation.
Sig. Shake and apply with camel's-hair brush one to three times a day, *p. r. n.*

No. 2.

R.—Hydrarg. bichlor..... grs.v to x.
Ol. sassafras..... ʒj.
Alcohol..... q. s. ad. ʒj.
M.—Et. ft. sol.
Sig. Same directions as for No. 1. Should either produce much itching or irritation, apply glycerine.

For simple eczema affecting the hands, in my own person (after trying two eminent college professors without benefit), I succeeded in effecting a speedy cure with the following, which has served me well in subsequent cases:

R.—Sapo viridis,
Alcohol..... āā ʒj.
Dissolve the soap in the alcohol, strain through cheese cloth, and add
Ol. cajuput..... ʒij.
Sig. To be well rubbed in several times a day.

The above may be perfumed with oil of rose, neroli or otherwise to suit.

For the eruption caused by poison oak, the frequent application of a saturated solution of chloride of ammonium has scarcely, if ever, failed in my hands to effect a cure in from twelve to twenty-four hours.

—Kemper, in *Med. World*.

ATTENTION has been drawn in London to the alleged fact that cabs and omnibuses are literally hotbeds of diphtheria. Patients suffering from this disease being generally taken to the hospitals in public conveyances, the microbe takes up its abode in the cushions, and even the specks of dust flying about in the carriages sometimes contain, it is said, whole swarms of them. Inquiry was last year made at one of the large hospitals, from which it appeared that out of 797 children with diphtheria taken there 375 came in cabs, 67 by omnibuses, 13 in private conveyances, 195 on foot, and only 143 in the ambulance vans. To avoid this danger, it is suggested that every cab bringing to a hospital a patient affected with an infectious disease should be thoroughly disinfected at the driver's expense. The latter would then refuse to drive these patients, who would be compelled to take ambulance vans.

—*American Practitioner*.

HERNIA IN INFANCY.—The age at which mechanical treatment may be begun is a question which I have found many physicians in doubt upon, and my answer to that has been almost uniformly that a child old enough to be the possessor of herina was quite old enough to have that hernia treated.

—DeGarner, *Archives of Pediatrics*.

BANANA JUICE FOR CHRONIC BRONCHITIS.—The juice of bananas is recommended as one of the best remedies in chronic bronchitis with insufficient expectoration and marked dyspnoea. Bad results have never been observed to follow its administration. A drachm eight or ten times a day during the first days is usually prescribed, and later the dose can be diminished. The syrup is prepared as follows: Cut the fruit in slices and place them in a glass jar; sprinkle with sugar and cover the jar, which is then enveloped in straw and placed in cold water, and the latter is heated to the boiling point. The jar is then removed, allowed to cool, and the juice is poured into little bottles.—*Ex.*

COMPARATIVE COST OF MEDICAL EDUCATION IN ENGLAND AND AMERICA.—According to the estimate of the Secretary of the Illinois Board of Health, the average fees for the eleven London schools are, exclusive of the examination fees, £118, 5s.; for the provincial schools, £98. In addition, each student has to pay from 10s. to £3 matriculation to one of the degree granting bodies; from £1 to £15 for the first examination; from £1 to £10 for the second; from £2 to £15 for the first degree or qualification examination. In some of the colleges in the United States all the fees do not amount to \$300, and in at least one the whole course of study and the diploma can be had for \$138.—*Med. Age.*

FORMULÆ FOR THE EXTERNAL USE OF SULPHUR.

—1. Take of

R.—Sublimed sulphur ½ drachm.
Salicylic acid 8 grains.
Powdered arrowroot ½ ounce.—M.

2. Take of

R.—Sublimed sulphur ½ drachm.
Almond oil,
Glycerine āā 3 ounces.—M.

3. Take of

R.—Sublimed sulphur 2 drachms.
Ætheris sulphuris,
Spirits vini rectifi āā 2 ounces.

M.—Sig. Shake well and mop over the surface.

4. Take of

R.—Sublimed sulphur 2 scruples.
Vaseline or ointment of benzoated
oxide of zinc 1 ounce.

—Szadck, in *Atlanta Jour.*

ABORTION.—1. An abortion is a pathological process, involving the premature expulsion of foetus and membranes from the uterine cavity, which normally have an existence of nine months before they shall have completed their physiological intention.

2. That such expulsion is generally incomplete when left to nature, thus exposing the patient to subsequent pathological conditions, or possible death.

3. That every case should receive a careful examination by the use of the blunt curette in preference to the finger, as it is safe, easier of introduction, and more effective.

4. Complete removal of all membranes, maternal and foetal, offers the greatest protection and safety to the patient.

5. Perfect asepsis and drainage is a necessary supplement to the curette.

6. Ergot has little or no effect in the treatment of cases of abortion; if used at all, it should be in the later stages, to assist in involution.

—Crowell, in *Med. Index*.

CELIOTOMY IN RUPTURE OF UTERUS.—Many cases of spontaneous rupture are doubtless unrecognized by the general practitioner. Profound shock after delivery should always awaken suspicion, even if there is only moderate external hemorrhage, and a thorough examination should be made. Text-books give rules for recognizing rupture only during parturition.

The rules laid down for the treatment of rupture are uncertain and confusing. The tendency of the practitioner is toward purely expectant treatment. He would pack the vagina with gauze, and wait. This course is too often fatal. The emergency is a surgical one, and is to be treated according to the ordinary rules of surgery. The fact that successful cases of celiotomy for rupture of the parturient uterus are comparatively rare is no more an argument against the operation than if it were applied to gunshot wounds of the abdominal viscera.

In analyzing the unsuccessful cases it will generally be found that the operative interference came too late, that is, from eight to eighteen hours after rupture. The writer's successful case was as unfavorable as could be imagined, but the patient was operated upon promptly, as soon as the lesion was discovered. Two methods of active treatment are now recognized and practised, viz.:

1. Drainage *per vaginam*.

2. Abdominal section, followed by either (a) drainage, (b) suture of the tear, or (c) amputation of the uterus. Simple drainage has some powerful supporters (mainly in the Vienna school), and the statistics are apparently convincing; but it is not capable of general application to all cases, and the indications are not always clear, because without opening the abdomen it is frequently impossible to determine the following important points:

1. The nature and extent of the tear.
2. The presence of active hemorrhage.

3. The presence of blood and amniotic fluid in the peritoneal cavity. (It is assumed that the uterus has been amputated.)

The writer thinks that abdominal section is indicated under the following conditions:

1. Before the uterus is emptied.

(a) When the placenta or any portion of the foetus has escaped through the rent. Attempts at manual delivery only increase existing shock and destroy the patient's chances after section, as invariably shown by records of unsuccessful cases.

(b) Where there is evidence of progressive internal hemorrhage.

2. After the uterus is emptied.

(a) When there is extensive prolapse of the gut through the tear.

(b) In all complete lacerations (especially in those involving the broad ligaments) except small tears low down near the vaginal fornix, where good drainage can be maintained.

(c) In incomplete tears in which the broad ligament is extensively involved, and there is evidence of progressive hemorrhage. This point must remain *sub judice*. Only one other besides the writer (Peters) has opened the abdomen in such a case. His patient died, and the report of the case provoked considerable adverse criticism.

Parvin's summary is a comprehensive one, viz.: "Probably the solution of the question is this, that where the tear is in such a position that vaginal drainage is perfect the abdomen need not be opened, but if such drainage is impossible or imperfect then section is indicated."

What shall we do after opening the abdomen?

1. Arrest hemorrhage either with forceps or the temporary rubber ligature.

2. If the tear is small (two inches) and is low down in Douglas' pouch, drainage *per vaginam* may be indicated.

3. If the tear is clean cut, without contusion of the edges, and does not involve cervix or broad ligaments, it may be closed with deep and sero-serous sutures.

4. If the tear is not low down, is extensive, with contusion of the edges, and especially if a portion of the fœtus protrudes, amputation of the uterus, with extra-peritoneal treatment of the stump, is indicated. The child can be abstracted through the rent before removal of the uterus (Prevot) or afterward (Porro).

5. In extensive tranverse tears in the lower segment, and in tears beginning in the cervix and extending upward through the broad ligament, the writer would strongly urge the propriety of total extirpation of the uterus as the operation *par excellence*, as it is in many cases of hystero-myotomy, for the following reasons:

(a) It requires less time than Porro's operation, and is quite as easy, especially if the patient is placed in Trendelenburg's posture. There should be no great shock or loss of blood.

(b) All the contused tissue is removed, which if left behind the stump will inevitably slough and imperil the life of the patient.

(c) Drainage is perfect. After thorough irrigation and toilet of the peritoneal cavity, it can be closed, drainage being maintained *per vaginam* with iodo-form gauze, as after vaginal hysterectomy.

—Coe, in *Amer. Pract.*

A NEW SOLVENT AND ANTISEPTIC RETINOL.—Retinol is prepared by the destructive distillation of resin by heating resin in an iron retort.

Retinol has a formula of $C_{35}H_{16}$ a density of 6,900, and is of a brown or yellow color depending upon whether it is prepared from brown or yellow resin.

Retinol is of an oily consistence, slightly bitter acid reaction; the odor is fir-like. The solvent powder of this substance is remarkable, and it is said to be unirritating, antiseptic and desiccative, exhibiting no tendency to become rancid or any way decompose.

It is not yet to be obtained commercially, although it is said to be cheap.—*Notes on new Remedies.*

Medical News and Miscellany.

SNUFF AND NONSENSE.

A dusty old woman, who always used snuff,
One day fell to ailing and doctors enough

Declared they must give her a bleeding,
So one brought his lancet and one held her head,
While another blinked wisely beside of her bed—
A kind and judicious proceeding.

But no sooner had one of these doctors enough
Bored a hole in her arm, than out poured some dark stuff
Quite beyond all their powers of defining.
The one with the lancet looked solemn and red;
Another blinked thrice, while the man at her head
Conceived that it might be her lining.

Still out poured the stuff till a bushel or more,
(To the doctors' belief) lay upheaped on the floor,
While the woman grew thinner and thinner,
Then she opened her eyes with a vigorous "Uff!"
"Why, where in the world did you get all that snuff;
And isn't it most time for dinner?"

So the doctors, complacent, all suavely agreed
That the case had turned out as they knew 'twould, indeed,
For doubt or surprise is unknown to their creed,
And who yields is a frowned upon sinner.

—*Pharmaceutical Era.*

DR. JEROME WALKER has resigned from the staff of the *Brooklyn Medical Journal*.

DR. GEO. M. GOULD has succeeded Dr. Hobart A. Hare as editor of the *Medical News*.

CHLORALAMID has been made officinal in the last edition of the *German Pharmacopœia*.

THE Baltimore Academy of Medicine has departed this life at the early age of fourteen years.

THE Common Council of Cincinnati has passed an ordinance prohibiting public exhibitions of hypnotisms.

WHISKEY is not potent enough for our Scandinavian fellow-citizens of Michigan, who are said to fortify the spirit by adding ether.

MONO-BROMO acetanilid is identical with the proprietary asepsia, and consists of a mechanical mixture of acetanilid and bromide of sodium.—*Ex.*

DR. OSCAR JENNINGS, of Paris, in a recently published pamphlet makes a strong plea for the bicycle as a means of relieving the ills that sedentary flesh is heir to.

DR. A. BEECHER BARNES died at Southington, Conn., lately. Many years ago he introduced "helioptomy," or solar surgery, the method being the concentration of the sun's rays upon the part needing operation.

SEVEN States of the Union have medical colleges admitting women, and there are ten colleges exclusively for women, and over thirty that admit both sexes.—*Texas Courier.*

THE rapid extension of leprosy in Russia has excited the alarm of the authorities, and the Town Council of Riga has voted 60,000 rubles to establish a hospital for lepers, which is to be inaugurated in July.

DR. KIERNAN states that a New York male physician with a large practice always wore feminine apparel. Who is he? Until this question is settled, New York lady doctors with perceptible mustaches will be under suspicion.

PYOKTANIN STAINS REMOVABLE.—The blue stains on the hands, etc., from pyoktanin, are readily removable by lathering with common soap (rubbing-in well), and then washing (or, if need be, brushing) off with alcohol, or with any strong alcoholic liquor. —*Mercks Bul.*

THE New York State Civil Service Commission will hold an examination for lady physicians to State insane asylums in the Capitol at Albany, on June 11. All who reside in the State and have had one year's experience in hospital practice or three years' general medical practice are free to compete.

THE Camden Training School for Nurses, under the management of the physicians and surgeons connected with the Cooper Hospital, held its annual commencement at Morgan's Hall, Monday evening, June 1, 1891. There were nine graduates. The address was given by Dr. E. L. B. Godfrey.

A CORRESPONDENT of the *Medical Record* asks for a reliable method of removing superfluous hairs, without the use of electricity. The best methods in vogue are: sitting in the front row at the opera bouffe, marrying a capable woman, and practising medicine in an Eastern city. If these fail, the hairs may be removed with forceps.

FOUR YEARS' COURSE OF STUDY AT HARVARD.—The course of study in the Harvard Medical School is to be increased from three years to four. The proposed change will not go into effect until September, 1892, and will not affect students now in the school nor those who may enter during 1891.

The details of the new course have not yet been arranged. The entrance examination will remain the same as at present, and the course itself will comprise four years of nine months each. Certain essentials of a medical education which the student is expected to acquire, but on which no examination is at present required, will be put upon the list of requirements for graduation.

VACANT PROFESSORSHIPS FILLED.—The Trustees of the University of Pennsylvania recently elected Dr. George A. Piersol, Professor of Anatomy; Dr. Harrison Allen, Professor of Comparative Anatomy; Dr. John B. Deaver, Assistant Professor of Applied Anatomy; George M. Dallas, Professor of Evidence and Practice in the Law Department; Dr. S. S. J. Harger, Professor of Veterinary Anatomy; Dr. Leonard Pearson, Professor of Veterinary Medicine; Dr. Edward Martin, Clinical Professor of Genito-Urinary Surgery; Prof. Henry W. Rolfe, Lecturer on the Latin Language and Literature in the Graduate Department; Dr. E. W. Holmes, Demonstrator of Anatomy; Dr. A. B. Woodford, Instructor in Political Science in the Wharton School, and Edward W. Mumford, Assistant Secretary of the Board of Trustees.

UNIVERSITY OF THE STATE OF NEW YORK, EXAMINATION DEPARTMENT.—The following amendment to chapter 507 laws of New York, 1890, was approved by the Governor on May 4, taking effect immediately, as chapter 311 of the laws of 1891:

"This act shall not apply to any student who duly matriculated in some legally incorporated medical college of the State of New York before the 5th day of June, 1889, provided that such student shall file with the secretary of the board of regents of the University of the State of New York, a certificate setting forth the fact of such matriculation, verified by the applicant and signed by the secretary of the faculty of the college at which he matriculated."

This act will exempt only such students as file the required certificate in the Regents' office on or before August 4, 1891. The following is the form of the certificate:

It is hereby certified that _____ was on _____ 18 _____ duly registered on its official records as a fully matriculated medical student in _____

Signed, _____,

Secretary of the Faculty.

State of New York }
City of _____ } ss.
County of _____ }

being duly sworn says that he is the identical person referred to in the above certificate, and that all the statements therein set forth are true.

Sworn to before me

this _____ day of _____ 1891.

_____,
Notary Public.

AN "ETHICAL" CARD.—Some wag of this city, doubtless impressed with the number of cards of "specialists" being sent out, has mailed the following announcement to a large number of the profession:

"DR. A. PHTHOOTHORN FORTISLINGUA, late of the Brown-Séguard Hospital, Specialist, Kansas City, Mo. Consulting Physician of the U. S. Standing Candidate for Hospital Staff. Specialist in the following diseases: All Diseases of the Female, Skin and Venereal; Eye, Ear, Nose and Throat; Surgery and Rectum; Nails and Hair, Teeth, Gums, Nervous and Brain; Chest and Abdominal; Upper and Lower Extremities; Children, Adult and Aged; Kidney, Liver and Prostate Gland; Fevers, Grippe and Corns. P. S.—Practice limited to these. P. S. No. 2.—I do not treat Chicken Pox. STRICTLY ETHICAL."
"Lymph de Koch always on tap. Ovaries removed while you wait."—*Lanphear's Index.*

PUBLIC CHARITY IN EUROPE.—In Belgium the authorities are attempting to replace poor-houses with agricultural colonies, where the incapacitated, convicted mendicants, and voluntary applicants are received. Labor is compulsory. Nearly everything produced is consumed in the colony. Large stretches of land, where once nothing grew except the heath plant, have been fertilized. Still these establishments have been criticised as failures from the moral aspect, and ineffectual in the degree of relief they afford. They have been described as schools of corruption for the people of weak character they are designed to harbor. In Austria the authorities charged with watching over the public safety can require persons capable of working to prove within a given time that they have regular means of livelihood, under pain of imprisonment from a week to three months. The towns can furnish unfortunates

with work and wages, and if they refuse they must undergo the penalty. In Sweden a person wandering from place to place with no occupation, first receives a warning, and in case of a repetition of the offense is placed under restraint, exceptions being made of the aged and the infirm. In England indolent and disorderly persons are punished with a month's hard labor, vagabonds with three months; and not only beggars and wretches, who simulate infirmities, are accounted as such, but those who abandon their wives and children to public charity. Old offenders can be sentenced for a year, and, in the case of men, the penalty of flogging may be added. If most recent laws have established light penalties for mendicity, they have at the same time empowered the authorities to confine the condemned for a longer or shorter time at the expiration of their punishment. Work-houses, for example, have been established since 1885 in the Canton of Luzern, in the Canton of Bern, in the State of New York, in Brazil, and also in the kingdoms of Austria and Holland. The inmates are nearly everywhere set at agricultural labor. In Germany the laws against paupers were formerly simply repressive, and often very cruel against those who attempted to gain their support by open beggary. Not being supplemented by measures designed to ameliorate the lot of the unfortunate, and enable them to obtain the means of existence, these laws were found insufficient, and the State recognized the necessity of creating a system of public charity. The consequence of its establishment was that those who would not accept its benefits, namely, confirmed beggars and vagabonds, were menaced with extremely severe punishments; yet these penalties have proved useless, because assistance has been insufficiently organized. It is confined to asylums maintained by communes and districts, which receive strangers without work for a few days, warn them of the laws against begging, and turn them out of doors to beg again. There are also colonies in which work is obligatory, seeking to serve as intermediaries between producers and consumers and to find places for domestic servants, establishments whose utility is neutralized by the necessity of showing pass-ports and *livrets* and by the introduction of corporeal punishment for adults. In Italy, where the penalties against beggary are the most severe, because the evil is more ripe there than in any other country, medicants and the habitually idle are liable to imprisonment, but those who are unfit for labor are sent to the charitable institutions, which are obliged to receive them. Under the law on charitable institutions, passed by the Italian Parliament last July against the protest of the Clerical party, all the benevolent establishments which have for their objects to aid the poor or the sick, to furnish instruction, or in any sort ameliorate the moral or material condition of the people are subjected to vigorous State control.

—*Literary Digest.*

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from May 26, to June 1, 1891.

Leave of absence for twenty days is granted Major William E. Waters, Surgeon, U. S. Army. Par. 6, S. O. 122, A. G. O., May 28, 1891.

Captain Edward C. Carter, Assistant-Surgeon, will proceed without delay to Fort Canby, Washington, and report to the commanding officer for temporary duty, relieving Major John D. Hall, Surgeon, who will proceed to Fort Sherman, for duty as Post Surgeon. S. O. 74, Par. 1, Department of the Columbia, May 22, 1891.

By direction of the Secretary of War, Captain Jefferson R. Kean, Assistant-Surgeon, is assigned to duty (temporary) at Fort Myer, Va., until the return of Major Robert H. White, Surgeon, to duty at that post. Par. 8, S. O. 122, A. G. O., May 28, 1891.

By direction of the Secretary of War, leave of absence for three months on surgeon's certificate of disability is granted Captain Marlborough C. Wyeth, Assistant-Surgeon. Par. 6, S. O. 119, A. G. O., Washington, May 25, 1891.

Leave of absence for one month, with permission to apply for an extension of one month, is granted Captain Paul R. Brown, Assistant-Surgeon, U. S. Army. Par. 4, S. O. 59, Department of the Missouri, St. Louis, May 26, 1891.

Changes in the Medical Corps of the U. S. Navy for the week ending May 23, 1891.

BRIGHT, GEO. A., Surgeon. Detached from U. S. S. "Omaha," and granted three months' leave of absence.

MEANS, V. C. B., Passed Assistant-Surgeon. Detached from U. S. S. "Omaha," and granted three months' leave of absence.

KEENEY, JAS. F., Assistant-Surgeon. Ordered for examination preliminary to promotion to Passed Assistant-Surgeon.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ended May 23, 1891.

VANSANT, JOHN, Surgeon. Granted leave of absence for seven days. May 22, 1891.

IRWIN, FAIRFAX, Surgeon. Granted leave of absence for twenty-one days. May 11, 1891.

GUIERAS, G. M., Assistant-Surgeon. Relieved from special duty at New York, N. Y.; ordered to San Francisco, Cal. May 11, 1891.

GROENEVET, J. F., Assistant Surgeon. Relieved from duty at New York Marine Hospital; ordered to Gulf Quarantine. May 22, 1891.

YOUNG, G. B., Assistant-Surgeon. Granted leave of absence for thirty days. May 11, 1891.

PROMOTIONS.

PERRY, T. B., Passed Assistant-Surgeon. Commissioned as such by the President. May 23, 1891.

WOODWARD, R. M., Passed Assistant-Surgeon. Commissioned as such by the President. May 23, 1891.

TO CONTRIBUTORS AND CORRESPONDENTS.

ALL articles to be published under the head of original matter must be contributed to this journal alone, to insure their acceptance; each article must be accompanied by a note stating the conditions under which the author desires its insertion, and whether he wishes any reprints of the same.

Letters and communications, whether intended for publication or not, must contain the writer's name and address, not necessarily for publication, however. Letters asking for information will be answered privately or through the columns of the journal, according to their nature and the wish of the writers.

The secretaries of the various medical societies will confer a favor by sending us the dates of meetings, orders of exercises, and other matters of special interest connected therewith. Notifications, news, clippings, and marked newspaper items, relating to medical matters, personal, scientific, or public, will be thankfully received and published as space allows.

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PAGE	PAGE	PAGE
ORIGINAL ARTICLES.	ANNOTATIONS.	
TYPHOID FEVER. By William F. Waugh, M.D., Philadelphia, Pa. 487	Death of Dr. Griffith J. Thomas 499	Chloralamide. <i>Main</i> 501
NITROGEN CONTAINING FOODS AND THEIR RELATIONS TO MORBID STATES. By Frank Woodbury, M.D., Philadelphia, Pa. 489	Truth of Bible Maxims 499	Pyoktanin. <i>Burghard</i> 501
MALARIAL HEMOGLOBINURIA. By H. Mc-Hatton, M.D., Macon, Ga. 491	A Recent Editorial 499	Difficulties that May Occur in Diagnosis. <i>Hulke</i> 501
SOCIETY NOTES.	LETTERS TO THE EDITOR.	Etherization in Laryngeal Croup. <i>Bals</i> 502
NEW YORK ACADEMY OF MEDICINE 494	The First Midwifery Dispensary. <i>Lanphear</i> 499	Blood-letting. <i>Wilks</i> 502
Marked Rickets. <i>Myers</i> 494	Salicylic Acid. <i>Seitlikovitch</i> 499	Treatment of Syphilis. <i>Leloir</i> 502
Caisson Disease. <i>Ridlon</i> 495	Malarial Hemoglobinuria. <i>McHatton</i> . . 500	Aristol. <i>Shoemaker</i> 502
Non-union After Osteotomy in a Case of Severe Rachitis. <i>Ketch</i> 495	THE MEDICAL DIGEST.	The Tongue as a Respirator. <i>Scalliff</i> . . . 502
"When Shall We Discontinue Mechanical Treatment in Hip joint Disease?—With Remarks on the Symptoms and Treatment." <i>Shaffer</i> 495	Simulated Tuberculosis. <i>Sturges</i> 497	Another Remedy for Tuberculosis. <i>Franzen</i> 502
Iron Casts and Coaptation Splints. <i>Whitman</i> 497	FRENCH NOTES. <i>Roussel</i> 501	Treatment of Penetrating Wounds of Abdomen. <i>Lanphear</i> 502
EDITORIALS.	Removals of the Breast. <i>Terrillon</i> . . . 501	Against Digitalis in Pneumonia. <i>Carhart</i> . 502
PENNSYLVANIA STATE MEDICAL SOCIETY . 498	Gold in Diabetes Mellitus. <i>Robinson</i> . . 501	Plugging for Epistaxis. <i>Daly</i> 502
	Excessive Perspiration of the Feet. <i>Wingradoff</i> 501	The Treatment of Acute Vaginitis. <i>Godfrey</i> 502
	Thiersch's Antiseptic Solution. <i>Pharmaceutical Era</i> 501	Aristol in Atrophic Rhinitis. <i>Braislén</i> . . 502
	Slight Degeneration of the Renal Epithelium in Acute Phthisis. <i>Kahlden</i> . . . 501	Results of Injuries to the Skull. <i>Norton</i> . 504
		Surgical Treatment of Pleuritic Effusions. <i>Heuston</i> 504
		Multiple Fractures. <i>Harvey</i> 505
		Aristol. <i>Pollak</i> 505
		Extra Peritoneal Hysteropexy. <i>Assaky</i> . . 506
		MEDICAL NEWS AND MISCELLANY, 506
		NOTES AND ITEMS -iv, xii

Original Articles.

TYPHOID FEVER.¹

By WILLIAM F. WAUGH, M.D.,
PHILADELPHIA, PA.

I OWE this society an apology for addressing it the third time on the subject of typhoid fever. But to us this is the most important of all the continued fevers; as it prevails in every part of the State. And now that so many able workers are placing their ideas before the profession, it is necessary for one who believes he has things of importance to say, to speak out emphatically and persistently, or his first utterances are quickly forgotten.

In 1888 I proposed to you the treatment of typhoid fever by the administration of the sulpho-carbolates. I now lay before you the results of that treatment in one hundred cases.

PATHOLOGICAL BASIS.

The researches of Klebs and Eberth have given us the means of comprehending this disease, and of assigning a definite explanation to each of its salient phenomena; and consequently have enabled us to apply our remedies with a distinct purpose in view.

We have to deal with a specific morbid principle, a living entity, a micro-organism, entering the body occasionally through the air-passages, but almost always passing into the alimentary canal with the food or drink. Here it multiplies, and during its life produces certain phenomena that are manifested to us as the symptoms of typhoid fever. It is almost certain that these are not all due to the typhoid bacillus; but that by its operations this organism opens the way to others, and to the work of the latter we owe no small part of the phenomena observed during an at-

tack of typhoid. For instance, while the typhoid bacillus attacks Peyer's patches, and sets up a disease therein, it seems probable that the suppuration of these patches is the work of the ordinary bacteria of suppuration; the staphylococci, etc. These are always to be found in the intestinal canal, but their action is successfully resisted by the tissues until these have been weakened by the disease set up by the typhoid bacillus. So, also, the suppuration occurring in various parts of the body, as complications or sequels of typhoid, are probably due to this secondary infection by the pyogenic bacteria, entering the system through the door opened by the typhoid bacillus.

Moreover, we know that the effects of micro-organisms in the body are often mediate; they are not caused directly by the presence of these organisms, but are produced by those substances generated in the body by the bacteria, known as ptomaines, that act as agents more or less toxic to the human body, like the alkaloids. When these ptomaines shall have been sufficiently studied, we will be able to detect their presence in the body by their effects, as surely as we recognize the action of morphine or atropine by examining the pupil. At present, we can only treat of these substances in mass; and I will ask you to consider for a moment the state of the intestinal canal, during the course of a typhoid fever. The fever has dried up the secretion of the digestive fluids, lacteal absorption is prevented by the disease of Peyer's patches. The intestines contain a mixture of vitiated secretions, dead and dying tissues, food that cannot be digested; the whole forming a decomposing mass in which the typhoid bacillus, the pyogenic bacteria, and a host of unknown micro-organisms carry on their work, unchecked by the forces that in health are sufficient to prevent, or inhibit their functions. Here is found the field for the employment of antiseptics; the indication being to destroy the micro-

¹Read before the Pennsylvania State Medical Society, June 3, 1891.

organisms, and thus prevent the production of those toxic bodies that, absorbed from the intestinal canal into the blood, give rise to a certain portion of the symptoms of typhoid fever. I say, a portion, not all, for it has been shown that even in the earliest stages of this disease the typhoid bacillus has penetrated beyond the intestinal canal, and has been found in the blood. This explains why in some cases the duration of the attack is not materially shortened; for the function of the antiseptic medication is essentially local. No remedy has yet been found that can pursue the microbe in the blood, and saturate this fluid to such a degree as to destroy the life of the bacteria in it, without first destroying the life of the patient.

RATIONAL THERAPEUTICS.

From this brief sketch of the pathology of typhoid fever, we are prepared to consider the question of therapeutics from a rational standpoint. There is no excuse now for empirical or symptomatic methods exclusively. Of these, the antipyretic treatment has had the greatest popularity; especially as regards the cold bath. This measure has been so generally employed that the cases so treated are numbered by many thousands. But we are really not agreed as to whether the fever thus suppressed is an enemy to be antagonized or a friend to be welcomed. Some have claimed that fever is Nature's means of destroying intrusive bacteria; the life of these organisms being strictly limited within certain degrees of heat. Taking it for granted, however, that fever is an evil, it is still a crude and unscientific method of treatment, to suppress this fever by applying cold, instead of going directly to the heart of the matter and removing the cause of the fever. Is it not better to clean out a dirty cellar than to seal up the openings that let the effluvia enter the house?

The only excuse for such a method of treatment is the want of a better one; and this I believe I have found in the use of intestinal antiseptics. By the production and continuance of intestinal antiseptics we put a stop to all the morbid operations going on in the bowels. The micro-organisms are destroyed; the production of ptomanies is stopped, and the symptoms of the disease are reduced to those arising from the bacilli that have penetrated beyond the reach of local germicidal agents. This enables us also to differentiate the effects due to this intestinal decomposition from all others.

INTESTINAL ANTISEPSIS.

Both before and since my paper appeared in 1888, there have been numerous applications of this principle. Calomel had been a favorite with practical physicians long before Wunderlich set upon it the seal of his approval. I do not know that George B. Wood ever explained the action of turpentine, but its effect is undoubtedly due largely to its antiseptic action; especially as it has been frequently noticed that the best effects are obtained from an old oil that has been oxidized largely. Iodine and carbolic acid were recommended by Bartholow; and iodine alone by Liebermeister. Salicylic acid, resorcin, naphthol, and naphtholine have each been advocated; and each is probably of value as an antiseptic. But none of these can compare with the sulpho-carbolates, because none is so effectual and so free from objectionable features. Salicylic acid is too feeble in antiseptic power, unless given in doses so large that they cause deafness and heart-failure. Carbolic acid is too nauseous, too irritant, and, if given in doses large enough to produce intestinal antiseptics, is liable to

cause toxic symptoms, sometimes developing very suddenly. Iodine is open to the same objections. The naphthols have been used by Bruce, with good effect; but unfortunately the limit of toleration is reached before the production of antiseptics. Besides, the nauseous taste is very objectionable. Salol unites the disadvantages of its constituents, but in a less degree than either. It is, perhaps, better than any of the preceding agents, but is not nearly so powerful as the sulpho-carbolates.

In the sulpho-carbolate of zinc we have an agent that is singularly free from objectionable qualities. It is inodorous, almost tasteless, easily retained by a delicate stomach, and the most powerful antiseptic I have ever introduced into the alimentary canal. I have given 5 grains every two hours for weeks, without noting any ill-effects. Much less than this suffices to fully disinfect the intestinal canal; in fact, 2 grains every four hours will usually deprive the stools of all unpleasant odor. At first I gave the drug only in powder, with an equal quantity of bismuth; but latterly I have been using a keratin-coated pill. This keratin-coating was introduced by Unna, who claimed that this substance is insoluble in the gastric juice, and will thus carry the drug, undiluted, past the stomach into the intestines, where, meeting the alkaline secretions, the coating will be dissolved, and the drug exercise its full force where it is most needed. This, however, has been pretty surely disproved; and I find that acids dissolve the coating of these pills in a test-tube quite readily. The pills, however, are easily taken and fully as effectual as the remedy in powder. My rule is to give $2\frac{1}{2}$ grains every two hours, until the stools lose their offensive odor, then to continue the same dose often enough to prevent the return of the odor. I regret that I have no more scientific means of regulating the dosage; but this answers all practical purposes.

EFFECTS OF THE SULPHO CARBOLATES.

Since 1888, I have used this drug in every case of typhoid fever treated by me. These cases, excluding those in which the diagnosis was not certain, and those in which the sulpho-carbolate was not employed until a late stage, number over one hundred. All of these recovered. All the doubtful cases recovered. The number and proportion of abortive cases treated by me in the same period, and not included in this list, were very large. The specific effects of the drug upon the symptoms were as follows: The fever fell from one to two degrees as soon as the stools became inodorous. This has been an invariable effect; and, as this fall brings the case out of the limits recommended by Brand as suitable for the cold bath treatment, this result alone would warrant us in the use of the sulpho-carbolate.

The diarrhoea ceased within twenty-four hours, or was reduced to a minimum. In fact, constipation generally ensue, and we were compelled to use enemas or salines to keep the bowels open, so as to secure antiseptics of their whole extent.

The tympanites and borborygmi disappeared, the abdomen becoming flat.

Intestinal hemorrhage occurred but once, and that in a case where the disease had nearly a week's start before the sulpho-carbolate was commenced.

The headache and delirium passed away with the fall in the fever, and did not reappear.

Now, all these effects followed with such unfailing regularity that I am compelled to believe that the symptoms mentioned are all due to the absorption of ptomanies from the intestinal canal.

In addition, I would say that the course of the disease has been nearly always shortened; that complications and sequels have been practically unknown.

If you will admit that one who has studied this fever with interest for twenty years has learned to recognize it somewhat earlier than he can demonstrate it by such unquestioned symptoms as the rash and the fever type, I will state that very many abortive cases have occurred; where, even after a threatening beginning, the sulpho carbolate has dissipated the attack in a week, or less. How do we reconcile this belief with the statement that the typhoid bacilli have been discovered in the blood, beyond the reach of remedies, in the earliest stages? It must be remembered that there is also a constant breeding of these bacilli going on in the intestines during the progress of the disease; and it is a fair supposition that, if these are destroyed, the forces of the system will prove sufficient for the destruction of the few that first entered, probably by phagocytosis.

LIMITATIONS.

As to the limitations of this remedy: I have not employed it for three years without learning that, like a certain brand of soap, there are some things it will not do.

In cases where I have been called late into the case, or where the antiseptics has not been perfect, no miracles are wrought by the zinc. If the intestinal ulcers are extensive, if hemorrhages have occurred, or when Wood's signs of impending perforation are present, turpentine is a better remedy, although I usually give the zinc also. Ataxy and cardiac failure demand their own remedies; the zinc is valueless to cure these conditions, inestimable as a preventive. Such cases should not be counted as failures of the method, then, as its function is not that of a panacea against the whole Pandora's box of ailments that accompany a typhoid. Its function is sharply defined and limited; but when used with a clear idea of its function, it renders these dangerous accidents impossible.

ABORTIVE TYPES.

In order to illustrate my remarks upon abortive cases, I select one from my note-book:

A young girl had passed through a severe attack of unmistakable typhoid fever. Her mother, who had never had this fever, nursed her through it. The hygiene of the house and of the room were poorly attended to. Some time after, the mother was seized with headache, aching of the bones, insomnia, broken and disconnected dreams, slight cough, irritability of the bowels, tympanites, borborygmi, colicky pains, gurgling and tenderness in the right iliac fossa, tongue showing a tendency to dryness down the center, and slight epistaxis. Here was enough to justify a diagnosis of incipient typhoid fever; but, under the sulpho carbolate, the patient recovered in three days.

A more pronounced case was that of a medical student, whose temperature had mounted up in the regular way until it had reached 103.6° the third evening, and 102.5° the next morning, when the zinc was commenced. That evening it was 102.5° ; the next, 102.8° ; the next, 102° ; the next, 100.8° ; and thereafter it did not rise above 101° at any time during the remainder of the attack. This lasted, in all, twenty-three days, when the temperature reached the normal point. In this case the spots were plainly visible.

I have scarcely anything to add to my remarks in 1888 upon the diet of these cases. My reliance is still upon the raw white of egg in ice-water, beef peptonoids, or raw beef with bovine, and absolutely nothing else. Milk I scarcely use in typhoid fever, except in the form of junket, or peptonized milk. Alcohol does not enter into the treatment of one-third of my cases; not that I have any prejudice against it, but simply because I do not need it.

The stools are carefully disinfected before being thrown into the sewer.

Numbers of other physicians have adopted this treatment, and their experience has confirmed me in the belief that we have, in the sulpho-carbolates, agents of unusual value in the treatment of typhoid fever.

NITROGEN-CONTAINING FOODS AND THEIR RELATIONS TO MORBID STATES.¹

By FRANK WOODBURY, M.D.,
PHILADELPHIA, PA.

IN connection with the paper of the evening, by Professor Chittenden, upon the "Food-value of Beef-preparations," I have been invited by the Honorable Board of Directors to contribute a few remarks upon "Nitrogen-containing Foods and their Relations to Certain Morbid States." Under the circumstances, it is proper that what I have to say shall be made as brief as possible.

At the outset, our attention is drawn to some fundamental physiological facts which must be kept in mind during the discussion of this subject. The human body is now regarded as a unit composed of an aggregation or community of cells. These anatomical elements differ from each other in some respects, but agree in this: each cell consists of two parts, one living and one non-living, corresponding with cell-nucleus and formed material. What is visible to us is the non-living part, or the formed material; the real living part of the organism is hidden from view. Just as in vegetable tissue, the parts that are permanent and solid are composed of the cell-walls, which may remain long after the essential living part or protoplasm of the wood cell has dried up and disappeared—in a similar manner, in the human subject, the various organs and tissues which give it form and substance are not living; the only part exhibiting vital phenomena is the soft, shapeless, and colorless cell-nucleus, consisting of protoplasm or bioplasm. This living substance, in its chemical composition, resembles the various tissues, varying somewhat according to function, but it contains one essential ingredient which is so characteristic as to confer its name upon the whole class—this element is nitrogen. The celebrated dictum, "Without phosphorus, no thought," might be paraphrased "Without nitrogen, no life." Viewed from the physiological standpoint, the name "Azote," applied to this element by Lavoisier, appears remarkably inappropriate.

As a necessary constituent of the tissues, therefore, nitrogen, in a state of combination, is always present in the human body. Since it is found in considerable quantity and in various forms in the excretions, some two or three hundred grains being discharged daily by the kidneys alone, besides what is lost by the intestinal tract and the skin, it is evident that in order to maintain life the supply must be kept up from out-

¹Read before the Philadelphia County Medical Society, May 29, 1891.

side sources. There are two principal directions in which we may look for the supply of nitrogen, (1) the atmospheric air, and (2) the food.

Although the atmospheric air contains about eighty per cent. of nitrogen, we may dismiss this at once as not available, beyond a very limited extent. Experiment has shown that it is not consumed or absorbed in the act of respiration; but a certain amount of air is always swallowed with the food and passes into the stomach, where it may become absorbed by the gastro-intestinal mucous membrane. It is possible that a small quantity is introduced by this channel, especially since it has been demonstrated that a moderate amount of gaseous nitrogen is excreted or exhaled by the skin.

Nitrogen-containing food must, therefore, be regarded as practically the only source of the constant supply of nitrogen which is so essential to the maintenance of the body in a normal condition. In fact, due attention has already been given to this by Liebig, Fick, Wislicenus, Parkes, Pavy, Flint, and others; and the proper relation of the two great divisions of proximate principles of organic origin, the nitrogenized and the non-nitrogenized, have been pretty closely determined. As their results are to be found in all the text-books, I will not refer to them in detail. I may remark, however, in passing, that from the clinical standpoint there appears to be a fallacy underlying all these calculations of dietaries, where food values are expressed in grains of nitrogen and carbon, inasmuch as no allowance is made for waste; the entire quantity ingested is supposed to be digested and assimilated. In practice we know that the feces contain considerable nitrogen, which is not excretory, properly speaking, but represents the excess of consumption, part of the food having escaped digestion. In nursing infants the feces consist largely of undigested casein. Even adults are not able to entirely digest milk, and if so simple an article of food as milk is not completely assimilated, what warrant have we for assuming that the nitrogenized constituents of peas and beans, or of animal tissue, will yield their full equivalent of potential force to the organism? On the contrary, we know it to be a fact, that much food-stuff passes through the alimentary canal without having its proximate principles extracted by the digestive organs and the absorbents.

We may, however, both clinically and by physiological experiment, making due allowance for the personal equation, determine with sufficient exactness the kinds and proportion of different foods required to maintain the body in a normal condition. Proceeding on the same lines, we may discover the effects of an excess, actual or relative, of nitrogen; or, on the other hand, we may ascertain the results of deprivation either partial or complete. We may also be able to see some therapeutic applications of the knowledge thus gained.

From the time of Hippocrates, and even earlier, it has been known that health and disease are largely influenced by food, and that the effects of an animal diet are different from those of a diet exclusively of vegetables. A distinction was even made between leguminous and other forms of vegetable food. It was not until our own day, however, that the practising physician possessed sufficient knowledge of the chemistry of food and of metabolism in health and disease to enable him to direct the diet of his patients upon scientific principles. Following the definition given by Hippocrates, "Medicine consists in addition and subtraction, the addition of the things which are

deficient and the subtraction of those things which are redundant; he who practises this is the best physician, but he whose practice is farthest from it is the farthest removed from a knowledge of the art"—we can now prescribe viands suited to a deficiency of nitrogen in the system, or substitute others if there is an excess. To the therapeutic aspect of the subject I will now very briefly ask your attention.

Taking up the latter instance first, we find that a diet poor in nitrogen is useful in the several forms of rheumatism, in gout and lithæmia, and also in recurring attacks of biliousness and bilious headache. Scurvy appears to be caused by an absolute, as well as a relative, excess of nitrogen in the food, and I have seen it caused by the use of an excessive amount of fresh meat among children in an orphan asylum. In its treatment, vegetable food relatively poor in nitrogen is usually employed. Some skin diseases, possibly of lithæmic character, are only to be cured by withholding nitrogenized food. It seems possible that a liberal use of meat in the diet may have some connection with the development of cancer, a disease which appears to be on the increase, as was pointed out by Dr. R. A. Cleemann, of this Society, in his "Address on Hygiene," delivered before the Medical Society of the State of Pennsylvania a few years ago. Dr. W. Mattieu Williams, in a little work on the "Chemistry of Cookery," pointedly directs attention to the large consumption of meat as a cause of various forms of cancer. In families where a hereditary tendency of this kind exists, it is possible that it might be overcome by vegetarianism. Some nervous affections, notably epilepsy and chorea, are greatly benefited by abstinence from meat in the food.

Owing to the writings of Roberts, Fothergill, and others, a causative connection between a diet rich in nitrogen and some forms of kidney inflammation or degeneration is now generally recognized. And in the treatment of the various forms of Bright's disease, attention to the diet is generally admitted to be of prime importance. There is a widely spread opinion that nitrogenized food is favorable to the occurrence of inflammation, and for this there seems to be a scientific foundation. Parkes has shown that a non-nitrogenized diet causes lowered blood-pressure and diminished arterial tension. Meat, therefore, is ordinarily prohibited under the antiphlogistic treatment, as it was formerly called. In acute inflammations of mucous surfaces, especially in plethoric subjects, the use of animal food is usually forbidden. This should not be applied too strictly, however, for in some cases of subacute or chronic character, a generous and nourishing diet is necessary.

On the other hand, nitrogenized food may be prescribed where there is, from any cause, a deficiency of albuminous principles in the blood, for example, in anæmia or chlorosis. In phthisis, this condition is sometimes quite marked, and good results have been obtained from the "beef and hot-water" plan of treatment, and also from the use of fresh bullock's blood, or hæmoglobin, which requires less digestive capacity and is more easily assimilated than muscle-tissue.

Children frequently suffer from a deficiency of nitrogen. Where an infant is reared upon condensed milk entirely, the limbs are plump but the tissues are flabby, on account of anæmia. Such children are late in getting their teeth and have little power of resistance against disease. The addition of oat-meal, barley, or rice to the milk will often bring about marked improvement and may prevent the development of rickets. Just here I might stop to point out

the fallacious character of some of the arguments based upon the comparative chemical composition of woman's milk and other foods. Leeds found in a number of specimens of woman's milk that the nitrogenous constituents varied from 4.86 to 0.85 per cent. So that one specimen of mother's milk may have six times the amount of albuminous material contained in another.¹ This shows the necessity when the child does not thrive at the breast, of examining the milk to find out if it be deficient in nitrogenized constituents. If so, the addition of beef-meal, bovine or other nitrogen-containing food in an easily assimilable form is advisable.

Eczema in infants, or in sewing women, is often traceable to a deficiency of nitrogen in the food, and Dr. Rohé, of Baltimore, advises the addition of meat-broth and eggs to the diet as an essential part of the treatment. Similarly, in many syphilitic eruptions upon the skin, in broken-down subjects, good food is a necessary preliminary to any specific treatment. Neurasthenia and atonic dyspepsia, which are so often associated in the same patient, especially if he is at the same time anæmic, can only be relieved by nitrogenized and fatty food, administered in a form easy of assimilation and at comparatively short intervals. On the other hand, in diabetes and in obesity, the diet may be largely nitrogenous, but in this case it is because there is a desire to reduce the carbohydrates and not because an excess of nitrogen is particularly sought after.

To return to the children, I wish to call attention to the fact that during the period of growth and development more nitrogen is needed than after the body has assumed its full stature. Hence, school children should have a due allowance of meat, and should be encouraged to eat oat-meal, corn, beans, peas, and other vegetables known to contain this valuable constituent.

In the foregoing brief *résumé* of an important and interesting subject, I have not made any distinction between the nitrogenous, proximate principles of animal and vegetable origin. Chemically and physiologically they are nearly identical; but practically there are minor differences of palatability, digestibility, and relative utility, which, at present, our limits will not permit us to consider.

MALARIAL HEMOGLOBINURIA.²

By H. MCHATTON, M.D.,
MACON, GEORGIA.

Member of National Medical Association, Georgia Medical Association
Macon Medical Society, Honorary Member of Kings County
(N. Y.) Medical Society.

MY attention was first called to this disease in the summer of 1884 by having a specimen of urine referred to me for analysis. The conclusions drawn from the specimen were: that the condition was that of hemoglobinuria, and not hematuria, the destruction of the corpuscles taking place in the circulation at large, that quinine should be our sheet-anchor in treatment, and that cathartics were contra-indicated on account of their depressing effect.

Finding that all writers (as far as I could learn by reading) were of the opinion that it was a hematuria, and that there was great diversity in regard to treatment, I determined to study the subject to the best of my ability. To this end I published a circular

letter in *The Atlanta Medical and Surgical Journal*, requesting the practitioners of the State to forward specimens of urine to my address, giving their opinions in regard to treatment, mortality, etc.

I received many specimens (more from Dr. Hillsmann, of Albany, Georgia, than from any one else), but virtually no expression of opinion.

Living far from any medical center, my literature has been confined to that of my own library; consequently there may be many valuable contributions to this subject that have escaped my notice.

There has been much discussion in regard to the first appearance of this disease. Feraud cites cases on the African coast as far back as 1820, and shows that it appeared in the new French posts a year or so after their settlement. I have heard of cases in Georgia in 1825 or 1830; the probabilities are that it is as ancient as any of the malarial group.

No race can claim exemption if put under favorable conditions for its development; the supposed immunity of the negro is not real; that they suffer less is unquestionable; they are not, as a class, a migratory race, and consequently less subject to variations of climate.

I have examined a specimen of urine from a case occurring in a mulatto, besides seeing several recorded, as well as one case of a full-blooded negro.

The etiology of this condition is unquestionably malarial; it only occurs in those that have been for some time exposed to malarial atmosphere, and have given evidences of malarial toxæmia; it responds as well to quinine as the average pernicious malarial attack; it is totally different from yellow fever, the only disease with which it is often confounded.

Pathological anatomy, according to Feraud, is as follows:

The skin is uniformly yellow and not in patches, as is the case in yellow fever. The earlier in the attack that the patient dies, the more intense the jaundice; ecchymoses is not as common as in yellow fever and effusions of blood as the muscles are not met with. There is no escape of blood from the muco-cutaneous openings, nothing characteristic in the cranial or thoracic cavities; the stomach is full of a greenish-colored liquid resembling spinach water. If there are inflammations of this organ, he considers that they are due to other causes, alcoholic principally.

The intestines present no peculiarity; the liver is the seat of decided changes estimating the healthy liver at 179.6 grms. (6¼ oz.); the weight is increased from 200 grms. to 1,000 grms. (from 7 to 35¼ oz.); this increase being due principally to congestion. The liver feels hard to the touch, the gall-bladder is distended with very dark viscid bile, the spleen weighs from two to three times the normal, is soft early in the disease, and hard later. The kidneys are congested and their weight increased; for the lack of instruments, the minute anatomy of these as well as the other organs has not been studied.

Many spots of ecchymoses are found in them, principally in corticle substance. The veins are in a state of extreme repletion; in fact, the state of congestion is often excessive, the pancreas, suprarenal, capsules, ureters and bladder present no special lesions. There has been no competent chemical and histological examination of the blood; it gives gross evidences of a large amount of bile.

The patients with this disease have always given previous evidence of malarial toxæmia, and the longer that they stay in a malarial climate, the more apt they are to contract it. One attack predisposes to another.

¹Quoted by Starr in his "Hygiene of the Nursery," Philadelphia, 1888.

²Read before the Georgia State Medical Association.

In the study of one hundred and eighty-five cases, Feraud found that ten occurred in the first year of exposure, forty-two in the second, seventy-nine in the third, thirty-seven in the fourth, nine in the fifth and eight after the fifth.

The majority of patients under his care were soldiers and criminals who were sent to Africa on an average of three years' time; consequently after the third year the residents became numerically less.

Feraud divides malarial hemoglobinuria into four types, which only differ in intensity, first mild, second severe, third grave, fourth siderant or pernicious. The mild form is usually intermittent; still any of the four may be intermittent, remittent or continued.

The initial chill is usually more violent than the previous ones that the patient has had, and is generally accompanied by nausea, vomiting, headache and hemoglobinuria. The jaundice comes on rapidly and is more intense than I have ever seen it in any other disease.

There is usually pain over the region of the kidneys and liver, which is increased by pressure.

The urine is increased in quantity early in the attack, but complete suppression sometimes takes place toward the end of the disease in fatal cases. Vomiting is one of the most distressing symptoms.

The vomited matters vary in color. At first they are the food, followed by emesis of biliary matter, and often the pure black vomit.

I have succeeded in producing hemin crystals from the vomited matters, so that there is no question in my mind that they often contain the blood constituents.

The bowels are sometimes loose and sometimes normal in frequency. The passages often resemble in color the urine. Unfortunately I have been thus far unable to make a chemical and microscopical examination, but the appearance often gives gross indications of the blood constituents.

Singultus in grave cases is a most distressing and persistent symptom. I have never seen hemorrhages from any of the muco-cutaneous openings.

The diagnosis of this disease is not difficult. In a person having been exposed to malarial influences for some time, a chill followed by more or less intense fever, green or black vomit, and hemoglobinuria, are sufficient to establish an absolute diagnosis. The examination of the urine is most important.

I have had the opportunity of examining a great many specimens of urine in the past year, and can give the following as the general characteristics. In color it varies from a brownish-red to a brownish-black. The order is usual that of normal urine, specific gravity from 1,012 to 1,034, dropping below the normal in convalescence, say 1,006 to 1,008.

Re-action in all the fresh specimens has been acid, sometimes very faintly so. It is always albuminous and will often boil solid. The sediment is usually quite abundant and a shade or so lighter in color than the urine. It is composed principally of granular matter, resulting from the decomposition of the blood corpuscles.

This often occurs in the shape of casts when they are very abundant. I look upon it as of serious import, as the two cases that have come under my observation have resulted in suppression. The casts were so abundant in these cases that it seems to me that the suppression might have been mechanical.

Other casts are often present, but in my experience never abundant. They are usually hyaline or hyalogramular, sometimes with a few blood or pus corpuscles attached. Uric acid and oxylate of lime crystals,

with kidney, bladder (and in the female), vaginal epithelium often occur.

In fact all the train of unimportant urinary constituents are liable to be found. I have never found blood corpuscles in any number, and in many perfectly fresh specimens (twenty to twenty-five minutes old) have failed to find a single one, but have always succeeded in producing hemin crystals in abundance. Blood corpuscles have been observed by competent men, so that there is no question of their occurrence in considerable numbers in some cases. Still I look on this as purely accidental and probably dependent on the rupture of capillaries in the congested kidneys.

The coloring matters of the blood can only be demonstrated by boiling the specimen with sodic-hydrate and by the guaiacum and turpentine test.

Specimens of the black vomit in these cases give abundant hemin crystals.

The following is a translation of Feraud's valuable table on the differential diagnosis between this disease and yellow fever. The only remark that I have to make in regard to it is, that it is twelve years old and considerable advance has been made in the study of the two diseases during that time:

MALARIAL HEMOGLOBINURIA.

A protracted stay in warm malarial countries is the predisposing cause, the most powerful and even indispensable.

The sickness is always preceded by numerous paroxysms of malarial fever, simple at first, and then more or less complicated, and generally assuming more and more the bilious aspect.

In every case the patient is notably anemic.

Generally the disease commences with a paroxysm of fever with violent shivering of longer or shorter duration, in every respect similar to a paroxysm of malarial fever.

The icterus appears at once with the first paroxysm of the disease, never goes off and gives from the outset and during the whole time a yellowish cast to the patient, varying from a yellow green to a deep yellow ochre; it is in every case general and of the same shade throughout.

The course is intermittent or remittent at first; the pulse, urine and vomiting follow exactly these variations; when the fever ceases then follows the period of weakness and recuperation; this is not similar to the remission in yellow fever, and is not separated in a perfect and absolutely distinct manner from the first paroxysm. It seems, indeed, that the fever is unwilling to give up its intensity, often endeavoring to return in its full strength if the patient succumbs to the fever period.

If the patient reaches the adynamic period he dies rather from profuse exhaustion than from the effects of decomposition.

The pulse follows the habitual variations of malarial fever during the feverish period of two or three paroxysms, which constitute the first part of the sickness; it does

YELLOW FEVER.

A protracted stay in warm countries, malarial or not, decreases the probability of attack.

The disease starts generally in the midst of perfect health and may show itself in subjects who have never had any attacks of intermittent fever, and who show signs of perfect health.

The disease starts frequently with a cephalalgia which keeps increasing; the beginning of the fever cannot be determined as well as the commencement of the malarial paroxysm which is instantaneous.

The icterus appears toward the third day and takes the place of the red color of the integument which was present at the outset of the disease; sometimes it does not show itself if the attack is light and the recovery rapid; it is sometimes confined to certain regions, or exhibits noticeable degrees of intensity in different places on the same subject.

The course is continuous with inflammatory tendencies for two, three or four days; a change then takes place; it is distinct enough to have been called the convalescence of death; indeed, for from six to twenty-four hours it may be believed that the disease is ended and that the patient has become convalescent.

The second period is perfectly separated from the first by this transition. It is, so to speak, a period of disintegration of the subject, killing the patient by decomposition, suppuration, hemorrhage, etc.

The pulse at the outset is full and regular, as in continued fever, and it remains so until the transition called the convalescence of death; at this time it drops all at

not drop at once and absolutely, being in this and all other respects similar to the pulse of the intermittent paroxysms; even when everything is going on well, there can be noticed daily variations, which are indications of abortive paroxysms.

A total cephalalgia forming a heavy cap on the cranium of the patient goes on increasing during the six or eight hours of the paroxysms, then decreases noticeably, and sometimes disappears to return at the next paroxysm.

The face is haggard and yellowish from the start, or soon after the invasion of the disease; the conjunctiva are yellowish in color, never injected, and shining, as in the case of incipient conjunctivitis.

The pains in the trunk extend around the body from the small of the back to the hypochondriacal regions; the hepatic and epigastric regions are, at times, exceedingly painful, and touching them induces shooting pains that may provoke cries from the patient, yet they are often hardly noticed, and at times these pains resemble rheumatic pains in the limbs, being neither very persistent nor very acute; it is rather a condition of uneasiness and weariness than of well defined pain.

The vomited matters are bilious, of a very pronounced green color, often similar to spinach water. The vomiting occurs constantly from the start of the paroxysm, and stops with it to return with the next.

After the first period, or fever period, vomitings continue, but preserve exactly the same characteristics. They stain linen light green, and, if gathered in a basin, they appear transparent, and of an emerald green or olive color.

There is, at times, a bilious diarrhoea from the start of the disease and during the vomitings; later there is often a lessening of the stools, and frequent recourse must be had to aperients to keep the bowels open.

The paroxysms at the onset may be allayed by quinine, and never call for antiphlogistics.

The disease is manifestly connected with malaria; it follows and is followed by paroxysms of intermittent fever; it is absolutely not transmissible from man to man.

Relapses in this disease are very frequent, and more and more easily contracted as the attacks are multiplied.

The tongue is damp and large, covered first with a whitish coating tolerably thick; this coating is soon covered greenish by the vomit; the tongue is not red at the point nor at its edges; it remains large, coated, and damp to the end of the sickness.

once, and remains compressible and infrequent.

A super orbital cephalalgia is at first very intense, but it either rapidly gives way under treatment, or continues without intermittence to the end of the inflammatory period during one or two days.

The face is flushed, of a light mahogany color at the start; it is only after several days that it becomes yellowish at the nostrils, the eyelids, and the lips; the eyes are shiny, the conjunctiva injected, and sometimes slightly bleared, as in incipient conjunctivitis.

The pains in the lumbar regions, which have been called coup de barre, and characterized by their intensity; they are very violent, and do not extend around the body; the hepatic and epigastric regions are not painful to the touch; generally acute pains are felt in the limbs, especially in the calves.

Vomiting at the start is not frequent, and is in no case bilious. The spells of vomiting do not exhibit that intermittence noticed in the bilious hemorrhagic fever.

After the inflammatory period the vomitings, when they appear, are first watery and colorless, then gray, then brown, containing a matter like soot, staining linen blackish-brown, and not light green, absolutely opaque when received in a basin.

Constipation is common at first, diarrhoea only when the sickness is protracted and is not bilious; on the contrary, it is exceedingly fetid, indicating a profound decomposition, and often containing that black matter absolutely unknown in bilious hemorrhagic fever.

The fever continues from the start; cannot be controlled by quinine, and often requires antiphlogistic treatment.

The influence of malaria has not been incontestably proved; the disease is not necessarily, nor even normally, preceded or followed by paroxysms of intermittent fever; the transmission from man to man is sadly and terribly frequent.

A second attack of this disease in the same patient is so rare that its occurrence has been denied by many authorities.

The tongue is white at its center, where it is fuzzy; it is red on the tip and on the edges; it is small and rounded; later it is bleeding or tough and trembling, as in typhoid affections.

The urine is black from the onset, and characteristic in its color to such an extent that the patient is always impressed by it; it is abundant and frequent, of a brownish-black aspect only during the paroxysms; later the urine is again strongly colored, but is no longer black; it may contain at this stage a little bile; it never does at the start; it is scanty at times, but never suppressed, excepting a few hours preceding death.

Probably parotiditis have been observed rarely and accidentally, where prolonged doses of calomel, causing a stomatitis, had been employed. I have knowledge of only one or two cases of this kind in over three hundred observations, and the relation existing between cause and effect has been easily established.

The urine at the start is red, clear, and simply feverish; it is limpid and scanty; later, if the disease grows worse, the urine is thick and turbid; it becomes more and more scant; finally a complete anuria often takes place one or two days before death.

Parotiditis is very frequent at the end of the disease.

Following Feraud, we have in 268 cases 124 mild cases, with no death; 64 severe cases, with 13 deaths; 59 grave cases, with 32 deaths, and 21 pernicious or siderant cases, with 21 deaths.

Unfavorable symptoms are a very violent chill, nervous symptoms of all kinds, and irregular or delayed appearance of the jaundice; the continued dark color of the urine, with diminution in quantity; the occurrence of large numbers of casts composed of the detritus of the blood corpuscles.

Persistent vomiting, black vomit, intense lumbar pains and continued hiccough; Feraud looks upon the latter as an especially unfavorable symptom.

Treatment—I have been somewhat criticised in regard to the size of my doses of quinine in this disease; my limited experience and the literature of the subject have convinced me that quinine is the only remedy that has any controlling effect, and that it should be given in large doses. It is as near a specific as we possess in medicine in its controlling influence in all the malarial group; all other medicines can only serve us in controlling symptoms, and are consequently secondary.

To show the effect of the quinine treatment in contrast to that of calomel, I introduce the following table of Feraud:

Cases.	Deaths.	Per Cent.	
a 71	22	31	{ Quinine in very small doses, calomel purgative.
d 11	4	36	
e 42	13	31	
f 30	9	30	{ Quinine in very small doses, calomel and other purgatives as the base of treatment.
b 40	8	20	
c 29	5	17	{ Quinine in medium doses, calomel in small doses.
g 27	3	17	
h 18	2	11	{ Quinine in large doses.
i 18	0	0	

In the group of eighteen cases under "H," one of the deaths was due to a pernicious or siderant and the other to an inter-current pernicious attack.

Dr. Norcum reports eleven cases with one death, which occurred one hour after he had seen the case, his treatment being large doses of quinine and hypodermics of morphine.

Feraud's treatment consists in giving an evacuant (including in this term an emetic or a laxative) in the early stage of the disease, if the patient's strength is good, but he often relies entirely upon quinine.

In regard to calomel he says: "I should like to see it disappear from the pharmacopœia of hot countries." He not only looks upon it as useless, but even harmful, and after a long and close study of the subject finds that a course of mercurials is a decided predisposing cause of the disease in question.

I should advise, as soon as the case is diagnosed, a sufficient dose of quinine to cinchonize the patient, say 30 grains in solution or its equivalent hypodermically, and this state of cinchonism should be kept up by smaller doses as long as the disease lasts. In this disease the stomach is so irritable that it cannot be depended upon, and we are compelled, at least in severe cases, to depend entirely on rectal and hypodermic administration of both food and medicine.

In regard to the symptomatic treatment, I look upon morphine as second to quinine; the hiccough and vomiting, both most distressing symptoms, can be better controlled by morphine than by anything else. I have given all the ordinary remedies a most thorough trial in this vomiting, and must confess that in severe cases I cannot recommend any of them.

Inhalations of nitrite of amyl will control the hiccough at any time, but its effects are so transient that in the long-run I fear it does us no good; for the abdominal pains hot poultices rank next to morphine. I cannot advise blisters, as thus far I have seen no good result from the use of them. Theoretically, I cannot see how they can be of any benefit; practically, they increase the suffering of the patient to a great extent.

Stimulation by alcoholics or digitalis must be free in proportion to the severity of the case.

Alimentation is imperative, and in the severer case will have to be almost exclusively rectal.

In convalescence we have a condition of profound ænemia, and I find the following combination very successful in its effect:

R.—Stych. sulph..... gr. i.
Acid arseniosi,
Hydrarg. bichlo.....ãã gr. ½
Quinia sulph.,
Ferri lactas.....ãã ʒi.
M.—Ft. pill, No. 60.
S. One after each meal.

A change of climate must be insisted upon.

CONCLUSIONS.

1. That this disease is purely malarial.
2. That the jaundice is not dependent on impairment of the hepatic functions, but on the coloring matters of the blood following the disintegration of the red blood corpuscles.

3. That quinine is the only medicine which has any controlling influence on the course of the disease.

Since the conclusion of this paper, I have received the fourth volume of Pepper's System of Medicine, in which there is an article on malarial hemaglobinuria by Dr. James Tyson; his experience is confined to mild cases entirely; his conception of this disease coincides so much with mine that had his article been in the first instead of the fourth volume of Pepper's System, I should have selected some other subject for my paper before this body.

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Reviews in the *American Journal of Sciences*, Vol. XIX., pages 163 to 176.

Treatment of hemorrhagic malarial fever (monograph), by Thomas J. Turpin, M. D., Forkland, Alabama, 1881.

Hemorrhagic malarial fever as it occurs in Alabama, by Jerome Corchran, M. D., *Journal of the American Medical Association*, Vol. IV., No. 22.

[NOTE.—Last winter I addressed some questions to Dr. A. W. Reyes, editor of *El Eco Cientifico de las Villas*, and one of our best known Spanish American Scientists; the answers occur in *El Eco* of February, 1886, which came to hand too late to incorporate in this paper.

The first question was in regard to etiology, which has been pretty thoroughly settled. The second is as follows: Does the profession in Cuba use quinine in malarial hematuria? Do they use calomel? Answer. Amplifying Dr. McHatton's question, we will say that what has been published in regard to paludism, hematuria and quinine is found in "Corre Fiebres bilieuses et Typhiques des pays chauds," Paris, 1883.

Dutroulan and Collin speak of bilious hemorrhagic fever in their respective papers. Benoit's important monograph was published in the fourth volume of the *Archives de Medecine Navale*, in 1881; in said Archives there is a work by Corre on the same subject, and in the *Gazette* of the hospitals of Paris of 1872, there is an observation by Primet, on a case of pernicious hematuria treated with happy result by large doses of quinine.

In regard to calomel, here it has been much used (we give it in our first observation on las fiebres de borrás); in other times the treatment of paludal fevers until the quinine treatment came to throw to the ground all others.]

Society Notes.

NEW YORK ACADEMY OF MEDICINE.

SECTION OF ORTHOPÆDIC SURGERY.

SAMUEL KETCH, M.D., Chairman.

DR. T. HALSTED MYERS presented a case of

MARKED RICKETS,

called congenital, on the mother's positive assertion that the greatly enlarged epiphyses of the tibiæ, femora, and radii were presented when she first examined the child a few days after birth. The sternum at that time, she noted, also was abnormally prominent. She had been in very good health all through gestation, and the father was a healthy man. No specific history could be obtained.

At present, the child is six years of age, and presents all the deformities of rickets in a marked degree, except that the head is well shaped, and there is a marked increase of the normal dorsal curve of the spine, rather than the dorso-lumbar kyphosis usually found in these cases. An unusual degree of permanent knee and hip flexion also exists, and the patient assumes, when resting, the hand-to-knee position of Pott's disease. The epiphyseal tenderness present seemed to indicate an active stage of the disease. After being nursed nine months, the child had a mixed diet, not especially starchy, nor lacking in animal fats.

The Chairman thought it not improbable that the spinal symptoms were the result of an acute lesion occurring coincidentally with this diathesis. In cases of simple kyphosis which he had examined, one of the points in the differential diagnosis had been the absence of psoas contraction, and in most of these cases the curve, unlike this one, disappeared when the patient was in the prone position.

DR. JOHN RIDLON exhibited the photograph of a patient, nineteen years old, who had had exactly this position all his life. There were additional curves in both the tibiæ and femora, which had developed gradually during his growth. It was worthy of note that psoas contraction was also present in this case.

DR. NEWTON M. SHAFFER had seen psoas contraction in these cases of rachitis. The case just

presented was not, in his opinion, one of tubercular disease of the spine, but a sensitive condition of the cancellous structure in the bodies of the vertebrae which simulates Pott's disease. He had never seen a case which he could consider one of congenital rachitis, and he was inclined to look upon this one as an instance of rachitis acquired at a very early age. It was not uncommon to find in rachitic patients a condition of the muscles somewhat resembling that found in tubercular joints. He was reminded of a case which he had seen in St. Luke's Hospital, in which there was a very sensitive joint, associated with muscular symptoms which might suggest hip joint disease, but these were simply due to hyperæmia of the epiphysis occurring in a rachitic subject, and in due time, with proper attention to nutrition, these symptoms disappeared.

Dr. RIDLON said that he had expected to present a patient illustrating certain peculiar conditions found in persons who had the

CAISSON DISEASE.

His patient had been working in compressed air for sixteen years, and during the past year had had forty or more attacks of the cramps which are peculiar to this disease. Associated with these, were stiffness, gradual shortening, and outward rotation of the right lower extremity, with a direct upward dislocation of the hip for a distance of three-quarters of an inch. This man had informed him that he knew of a number of others who had been working in compressed air, who had paralysis with shortening of the limb.

The Chairman said that he had seen a man, forty years of age, who had been a caisson worker and diver, and who presented an affection of both hips. There was very little motion except in abduction. There was no history of rheumatism, or other constitutional disorder.

Dr. SHAFFER had recently seen at the Orthopædic Dispensary a caisson worker, who presented bilateral hip symptoms, and who was scarcely able to walk. In this case, the symptoms were those of a pronounced rheumatic type, and the changes were apparently due to rheumatic arthritis.

Dr. RIDLON also exhibited photographs of the latest modification of Grattan's osteoclast, and of some of the cases which this surgeon had treated by means of the instrument. He now used it for forcibly correcting club feet, and in the opinion of the speaker, it was the handiest and most efficient contrivance of its class that he had seen.

NON-UNION AFTER OSTEOTOMY IN A CASE OF SEVERE RACHITIS.

The Chairman presented a little girl with a very exaggerated form of rickets, whose symptoms indicated that the disease was still active. The chief point of interest was the fact that about three years before, a skilful surgeon had performed osteotomy upon her for the correction of a very severe form of bowlegs, and this had resulted in non-union. This case showed the folly of operating in the presence of such a virulent form of rachitis. The treatment in his hands had consisted in the application of coaptation splints, and of a perineal crutch, which by means of a snap-joint allowed motion at the knee, but prevented dangerous traumatism, and favored locomotion. The idea of the apparatus was to favor locomotion rather than to attempt to secure union.

Dr. ROYAL WHITMAN doubted if this treatment would lead to union of the fragments, for the end of

the bones in such cases become extremely hard, and usually require to be removed before union can be secured.

Dr. R. H. SAYRE thought the non-union in this case might have resulted from the fact that the deformity was so great, that in order to correct it, a considerable interval must have been left between the ends of the bone after the osteotomy.

"WHEN SHALL WE DISCONTINUE MECHANICAL TREATMENT IN HIP JOINT DISEASE?—WITH REMARKS ON THE SYMPTOMS AND TREATMENT."

The paper of the evening, bearing the above title, was read by Dr. NEWTON M. SHAFFER.

The writer called attention to the difficulty which often existed in deciding this question, and entered a strong protest against the use of an anæsthetic as an aid in reaching a conclusion. Ether, it was claimed, would remove the reflex muscular protection of the joint in ostetic disease, and, with nature's protection removed, undue traumatism might be inflicted; and, under the influence of this traumatism, encysted tubercular material might be broken up, and a fresh infection occur. He recognized the fact that tubercular disease must run a long course, and he had long since ceased to expect any "short cut" in the treatment of these conditions. Scientific mechanical treatment places the joint under the best local conditions for repair, and aids nature, by climatic and other influences, in reaching the period of self limitation, but, after disintegration of the joint had once occurred, there was no apparatus that would cure hip disease, any more than a splint would cure a fractured thigh. Reference was made to the report by Dr. Lovett and the author on "The Ultimate Results of the Mechanical Treatment in Hip Joint Disease," published in 1887. Notwithstanding the great care exercised, and the four years' limit which governed the investigation of the cases reported upon, there had been several relapses.

Attention was then called to the fact that many surgeons ignore the neuro-muscular symptoms of hip joint disease, and to the fact that the anæsthesia removes the true reflex muscular spasm; that the absence of pain was not a safe criterion; that the absence of abscess afforded no positive evidence of the cessation of the disease, and that the patient could sustain a very severe concussion of the joint without pain or flinching, and yet be suffering from extensive and progressive tubercular disease; that abscesses and sinuses might exist (unconnected with the joint), and yet the patient be free from the necessity of mechanical treatment, and that sinuses might close and abscesses disappear with active disease present.

The author then stated that only two elements existed upon which a positive opinion could be based, viz.: (1) The gait and attitude of the patient, and (2) the character of the resistance to joint motion thus obtained. He divided the limp into three classes: (1) The limp of true disease; (2) the limp of a vulnerable joint in the convalescent stage; and (3) the limp of shortening and disease, all of which were described.

The important element, however, was the neuro-muscular protection of the articulation. He described it as a purely involuntary and instinctive effort on the part of nature to prevent traumatism. Without this element present, we are unable, as a rule, to make a diagnosis of hip disease, and if it were not present there would be no deformity. The mechanical treat-

ment should be directed not only to the deformity, but to the disease, and the necessity of controlling the knee was pointed out. The author's experience led him to advise the use of the old Taylor traction splint, with the rigid pelvic band, and double perineal pad, in securing the proper modification of traumatism at the hip, and in controlling the knee; and he spoke rather disparagingly of any splint in the stage of convalescence which permitted motion of the knee. He also stated that we need not fear the effect of prolonged mechanical treatment as much as the unheeded cry of the diseased joint for proper protection.

The following conditions contra indicated the removal of the apparatus: If manual concussion produces pain or flinching; if there is considerable deformity without ankylosis; if there is a true joint limp, or if there are abscesses or sinuses connected with the joint; or if there is a true reflex; muscular spasm limiting movement slightly in all directions; if there is almost perfect flexion, with the other movements considerably or markedly limited; if flexion and abduction and adduction are excellent, with rotation and extension limited; and, finally, if all the movements are nearly normal, except rotation inward during flexion (the limitations being due to the neuro-muscular protection), it is not safe to discontinue mechanical protection. Rotation inward during flexion is always the last motion to recover, and this may remain for several years after all the other signs have disappeared, and in many cases it still remains after the joint had recovered; but in the latter case its reflex character disappears.

Attention was called to the fact that even after the limp had entirely disappeared, a relapse may occur. A recent case occurring at St. Luke's Hospital was cited as an example. From this and other similar cases, the author draws the conclusion that there is a recognizable stage of hip joint disease which antedates the limping stage.

Excising the joint was then referred to, and the conclusion reached that in the absence of signs and symptoms by which we can exactly determine the extent of the lesion, and with the great difficulty, not to say impossibility, of a complete excision of the acetabular portion of the joint, excision of the joint was an unsatisfactory, and in many cases an unsafe, operation, and that mechanical treatment, while more difficult and requiring special training to make it successful, promised more satisfactory results both as to life and usefulness of the affected member.

The conclusions were as follows:

In the first apparent stage of tubercular disease of the hip joint, when there is no deformity present, and where we have only the neuro-muscular signs or the slight limp, or both, to guide us, as well as in the more severe forms of the disease, where tubercular disintegration of the joint had commenced, and when the muscular protection of the articulation is more pronounced, the only safe guides for discontinuing mechanical treatment are: (1) The absence of the expressive attitude and gait of tubercular osteitis of the hip joint, and (2) an essential modification or an abolition of the instinctive neuro muscular protection of the articulation; (3) that in all but exceptional cases a relapse as to the deformity or the disease, or both, is likely to occur as the result of the traumatism of locomotion, unless proper mechanical protection is maintained until the articulation is free from true reflex muscular spasm, or is ankylosed.

DISCUSSION.

DR. A. B. JUDSON shared in the general wish for more certain indications in the convalescent period. He agreed with Dr. Shaffer in thinking that the reflex or neuro-muscular signs are by far the most valuable indications of the condition of the joint. He never resorted to the use of ether in examining the joint, or to the more atrocious barbarism of striking the patient's heel till pain is produced. A patient of his had described the sensation of reflex action by saying that it resembles the general sensation felt in a swing when the descent from the highest point begins.

As but few of the superficial muscles are found, by palpation, to be contracted, he thought it likely that the intrinsic muscles—those beyond the reach of palpation—are chiefly affected, and suggested that probably the muscles exhibiting these phenomena are those which, like the adductors, have their origin and insertion in the bones which enter directly into the composition of the joint. The patient or the mother is sometimes alarmed by the discovery of the rigid adductor muscle, which is thought to be a morbid growth, or an abnormal bone, till it is shown that a similar thing is produced on the well side, when an effort is made which throws the adductors of that side into tonic contraction.

He thought it well to note the variety of these reflexes. Fixation of the joint is produced by a tonic contraction; but motion, especially in the early and convalescing periods, is asserted at a varying point, when a considerable arc has been transversed, by a muscular spasm, often recognized by the patient. Dr. Fayette Taylor, observing with still greater refinement, had classed "reluctance to relax," shown by the circumarticular muscles, among the reflex signs of incipient osteitis.

DR. R. H. SAYRE said that if the signs of reflex spasm continued, there was but little doubt that an unprotected joint would become deformed. An experimental removal of the apparatus seemed to be the only way of deciding about discontinuing mechanical treatment. It was true that the late Mr. Thomas said that any one who could not tell the day and hour when the disease stopped ought not to treat joint diseases; but his remarkable insight would appear to be quite exceptional. The existence of internal rotation and flexion he did not consider to be so significant as the author stated, for a hip which recovered with impaired motion was not necessarily a vulnerable one. It was highly important to distinguish carefully between the limitation of motion resulting from a deposit around the joint, and that due to reflex spasm. In the former there was not likely to be any damage to the joint from the removal of protecting apparatus.

DR. WHITMAN thought the case cited in the paper, which proved fatal as a result of prolonged suppuration, should have been treated by excision; for he had seen a number of apparently hopeless cases of this kind recover after such an operation.

DR. H. W. BERG thought that reflex muscular spasm was an unconscious, as well as a conservative, effort of nature, and therefore he could not understand how a description could be given by Dr. Judson's patient of the sensation produced by this spasm.

DR. JUDSON replied that the reflex action in question, when spasmodic, resembles the ordinary reflexes, such as respiration and nictitation, in being recognizable by the patient.

DR. MYERS said that the case at St. Luke's Hospital, referred to, had been examined repeatedly for six

weeks after all pain, deformity, and limp had disappeared, and the reflex muscular spasm was always detected. He had found the suggestion of Dr. Shaffer, to carefully avoid outward rotation during flexion tests, a very practical and valuable one, and had also noted that the same care should be used in testing abduction to avoid outward rotation, as the reflex muscular spasm at times could only be detected at the very extremes of motion. Dr. Myers said that during his observation of hip joint disease under the tuberculin treatment at St. Luke's Hospital, he had made daily careful examinations, and had come to the conclusion that the reflex muscular spasm was the first symptom affected. In the more marked cases, the symptoms, though lasting but a few days, exactly resembled the usual exacerbation of the disease, with increase of reflex spasm, less motion, or even deformity, increase of pain, and sensitiveness, and recurrence of night cries. In less marked reactions, several times the reflex muscular spasm became more alert though there was no rise of temperature, nor appreciable increase of joint sensitiveness, or decrease of motion. He believed with the reader of the paper that this spasm was the first and last symptom in hip joint disease. The tubercular process he thought was self-limited, and therefore, the indication to avoid traumatic reinfection was imperative.

DR. SAMUEL LLOYD referred to a case of hip joint disease, which he had had under observation, in which there was a recurrence after a period of nearly nine years. The proper time for the removal of apparatus could only be determined by experiment in each case. Lately, he had been endeavoring to assist the mechanical treatment of suppurative cases, by injecting a ten per cent. emulsion of iodoform in glycerine, and the results so far had been quite beneficial.

The Chairman thought that the question of the self-limitation of tubercular disease would account very satisfactorily for the varying results obtained in the removal of apparatus. The only absolutely reliable guide was the existence of reflex muscular spasm, and although he had studied this symptom carefully for many years, he was compelled to admit that in a certain proportion of cases it was very easily confounded with the mechanical resistance resulting from changes about the joint. The cases of so-called relapse, he was inclined to consider as a development of new foci of the disease.

He had been interested in the author's remarks about the fallaciousness of the ether test, and the useless traumatism often inflicted upon joints by improper manipulation and examination.

DR. SHAFFER, in closing the discussion, said with reference to the sensations of the patient resulting from reflex spasm, that as long ago as 1876, a very intelligent gentleman had compared this sensation to that experienced upon attempting to dodge a blow aimed at the stomach. The intrinsic muscular element would not explain the phenomena of reflex spasm, as was shown in knee joint disease, where the gastrocnemius muscle resists attempts at moving the knee joint, but allows of motion at the ankle joint. He believed that reflex spasm required for its development a peculiar specific irritation within the joint, probably of the nerves in the epiphysis. The very fact that this spasm is beyond the control of the patient's will renders it such a reliable guide in diagnosis and in deciding when to remove the apparatus. As regards the question of excision in the case referred to, he had not presented the full history of the case, and consequently had omitted to say that the father absolutely refused to give his consent to this oper-

ation. He thought all orthopædic surgeons recognized the self-limitation of tubercular disease, especially since the able paper published some years ago by Dr. Austin Flint. With regard to relapses, he felt that the traumatism of locomotion was sufficient in many cases to destroy the encysted condition of the tuberculous deposit about the joint, and hence, to produce a fresh infection with tubercular material of the vulnerable tissues in the capsule.

IRON CASTS AND COAPTATION SPLINTS.

DR. WHITMAN spoke of the advantage of employing iron splints in cases, particularly about the feet, where perfect apposition is desirable. A rough cast of the part is taken in plaster of Paris and sent to the iron founder, who produces an iron cast at an average cost of one dollar. On this cast, very light metal splints can be readily and accurately molded.

SIMULATED TUBERCULOSIS.—1. Children exhibiting symptoms commonly spoken of as "tubercular," sometimes recover and sometimes die. The mortality is greatest when the inflammation is cerebral, next greatest when it is peritoneal, and probably least when it is pulmonary. But in no case are the symptoms in question to be regarded as inevitably fatal.

2. Of the children properly included among the "tubercular," those that die are not always found to fulfill that description in the strict anatomical sense of exhibiting gray granulations, whilst those that recover (at least for a time) are not necessarily free from such granulations.

3. The real pathological unity of all cases of so-called tuberculosis is sufficiently shown in those that die (some rare examples expected where death occurs before the development of these morbid changes), by the character and seat of inflammation, enlargement and often caseation of bronchial or mesenteric glands, intestinal ulceration, tumid Peyer's glands, or some of these conditions. The gray granulation commonly called tubercle, is no necessary accompaniment of such anatomical changes. It is a liability more or less probable according as the inflammation invades the brain, the abdomen, or the lungs.

4. The highest mortality by far of tuberculosis, whether expressed in meningitis, broncho-pneumonia, or otherwise, concerns young children between infancy and four years of age. Precisely the same period covers the highest mortality by far of these same inflammations, when not tubercular.

5. Tuberculosis in young children is contracted rather than inherited. Among provoking causes, the occurrence of measles in very many instances marks the commencement of a decline ending in that way.

6. The prostration which sometimes follows diarrhoea, broncho-pneumonia, and other acute affections of infants and young children, may show symptoms not always to be distinguished from tubercular meningitis. Similar symptoms may be provoked also by the methods of depletion formerly in vogue whenever acute inflammation was suspected. But, while the diagnosis may thus be left in doubt, the indications afforded by these symptoms remain the same, the existence, namely, of dangerous asthenia and the need of stimulation and food.—Sturges, *Med. Press*.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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PENNSYLVANIA STATE MEDICAL SOCIETY.

THE Forty-first Annual Meeting was held in Reading last week. About three hundred physicians were present. The weather was very warm, and the visitors could form some idea of what Reading must be in midsummer, situated as the city is, in a basin, surrounded on all sides by hills that intercept the breezes. The first session was occupied by the reports and other business; with addresses by Mayor Merritt, and Dr. S. L. Kurtz, of Reading. In the afternoon the address on Medicine was given by Dr. J. C. Lange, of Allegheny, and that on Hygiene by Dr. A. B. Brumbaugh, of Huntingdon. Dr. J. M. Batten, of Allegheny, read a paper upon Tapeworm; discussed by Drs. Tyson, Cooper, and Earley.

The Society then paid a visit to the Reading Hospital. This institution is located on rising ground, overlooking the city, and has decided advantages over it in the way of catching the cooling breezes. The hospital is new, well built, and in perfect order. In its construction the advantages of having plenty of elbow-room are shown, the possession of ten acres of ground allowing free chance for lateral expansion. The wards are wide, with high ceilings, and the cubic space per bed is very large. One wing has just been erected by the generosity of a member of the Board of Managers, as a memorial to his wife, Mrs. Anna Wootten. This wing contains two wards with six beds in each; and eight private rooms, each furnished neatly with brass or enameled iron bedsteads, etc. At the outer corners are projecting corridors ending in single rooms, in which are located the bath-rooms, water-closets, and rooms for contagious cases, which are thus isolated. The nurses' rooms are in the upper story. Everywhere neatness, cleanliness, and order prevailed, with plenty of room. In the basement, under one of the projecting wings,

is a small operating room. The hospital has but one objectionable feature, its distance from the center of the city; but this is counterbalanced by the numerous advantages gained by the location. The institution is governed by a Board of Managers; and has, in addition, a Ladies' Aid Association, whose members dispensed most charmingly the hospitality of the institution to the visitors. The ladies have raised a large sum of money for the institution. The hospital accommodates fifty-six patients, but has not, as a rule, more than forty in its wards at any time. The reserve is not large, considering the needs that might at any time occur, should a great accident happen in the vicinity.

In the evening, the Society listened to an address from the President, Dr. Alex. Craig, and then adjourned to attend the reception tendered by the Berks County Society. The committee of arrangements deserves special commendation for the manner in which this reception was conducted.

On the second day, an address was made by Dr. Samuel Ayres, of Pittsburg, and several papers were read. The feature of this day should have been the discussion upon tubercular consumption; but, unfortunately, all those who were down for papers or speeches were upon one side—that opposed to the specific theory. Such "packing" of the assembly in the interests of one side destroys all interest in a discussion. Dr. Flick sustained his side manfully, but the force of numbers was against him. During the afternoon a number of the members made an excursion over the Mt. Penn Gravity Railroad, and came near meeting with a frightful accident—the mechanism of the cable becoming deranged. In the evening there were receptions given by several of the leading citizens.

On Thursday the addresses on surgery, ophthalmology, and obstetrics were given. Out of the six addresses four had been assigned to Allegheny county. In the afternoon St. Joseph's Hospital was visited, and an excursion taken over the Neversink Mountain Railroad to Klapperthal, where music, dancing, and luncheon prevented the members thinking too sadly of their absent wives.

Dr. S. L. Kurtz, the Chairman of the Committee of Arrangements, was elected President of the Society for the coming year. The other officers were re-elected. While the meeting was not very large, there was a notable preponderance of country members; and the wisdom of holding these meetings in the smaller cities was again demonstrated. The papers were better than usual; far too good to be buried in the Transactions. Dr. Mays' paper was especially commendable, although he took a stand that is not very popular at present. Dr. Anders' paper on asthma elicited some discussion, bringing Drs. Tyson, Roberts, and Anderson to their feet.

The hall in which the Society met was very defective in acoustic properties, and speaking from the stage was exceedingly difficult. Among those present were Drs. Brinton and Holland, of Jefferson College; Tyson, Musser, Roberts, Leidy, and Willard, of the University; Keyser, Montgomery, and Anders, of

the Medico-Chirurgical. Although a number of ladies are members of the State Society, and several were present, not one presented a paper, or, we believe, took any part in the discussions.

The next meeting will be in Harrisburg.

Annotations.

DR. GRIFFITH J. THOMAS died June 9, at Mercy Hospital, Pittsburg, of blood poisoning. Dr. Thomas had assisted at a surgical operation on the preceding Sunday, and the poison entered through a boil on his wrist. Thus prematurely closes a life full of promise. Dr. Thomas was a native of Wales, and fully endowed with the perseverance and industry of his race. Without any means he worked his way through the Pennsylvania State College at Bellefonte, earning his tuition and his livelihood by coaching other students, working as a printer, and by any other work that presented an opportunity of earning a dollar. Coming to this city he entered the Medico-Chirurgical College, and sustained himself in the same honorable manner during the three years of his medical course. Many of his fellow-students are indebted to Dr. Thomas for the pains taken by him to instruct them while carrying on his own studies. This spring he graduated with honor, winning the Spencer Morris prize of fifty dollars. At the competitive examination for residents at the Philadelphia Hospital, he stood eleventh in a list of fifty-six, while in the examinations for Mercy Hospital, held in Pittsburg, Philadelphia, and New York, he passed at the head of the list. Of such stuff true men are made. With such a record it is little wonder that his teachers looked upon him as one who would reflect honor on his Alma Mater by achievements beyond the average. But, alas! he has fallen in the first battle, and his life, so full of promise, is cut short at the beginning of his career. It cannot be that so much of value is lost utterly; that this long and painful course of preparation is simply wasted. If nature exhibits such care to preserve the ultimate elements of material existence, it is impossible that such a waste of the nobler, spiritual, existence can occur. And such deaths, more than all else, lead to the irresistible conviction that this life can be nothing more than the preparation for another.

HOW often the Bible maxims come into one's mind, with their wisdom unfailingly true to-day as when they were first uttered. Dr. John H. Rauch may now realize that a prophet is indeed not without honor save in his own country. Dr. Rauch's name is known all over the civilized world, and honored for his good work in behalf of American medicine; yet we read with amazement in the *Chicago Daily News*, of June 6, that the Illinois House refused to vote him his salary! The reasons for this action can only be found in the personal enmities made by Dr. Rauch in the discharge of his official duty. It is indeed difficult for a public officer to do his work honestly and fearlessly, without tramping on somebody's sensitive corns. And it does seem singular that the more ignorant and pretentious the quack, the more apt he is to obtain backing in political circles.

The matter was not settled at last accounts, as the Senate had not concurred in the amendment striking out Dr. Rauch's salary, and a conference committee will probably be called. Meanwhile the medical

press should take pains to inform the legislators how highly Dr. Rauch's work is valued by those best qualified to judge of it. It may not be amiss to note that the legislative body that thus distinguished itself, then adjourned to witness a game of base-ball between its Republican and Democratic members. We are unable to state which side won the game.

AN editorial in a recent number of this journal on malarial hematuria has attracted some attention to this affection. We resurrect from its mossy grave in the Georgia State Medical Society Transactions a valuable paper upon this subject, which we print in this issue, together with a letter from the author touching the points mentioned in our editorial.

Letters to the Editor.

THE FIRST MIDWIFERY DISPENSARY.

IN the last number of THE TIMES AND REGISTER there is a notice of the New York Midwifery Dispensary, from which one would draw the conclusion that this institution is the first of the kind in this country. Such, I assure you, is not the case. To Lyman A. Berger, A.M., M.D., Professor of Obstetrics in the University Medical College of Kansas City, should be given the credit of originating the "dispensary" plan of treating obstetrical cases. In the Eleventh Annual Announcement (for 1891) of the University will be found this paragraph:

OBSTETRICAL DISPENSARY.—The dispensary, located in the College building, was opened by the Professor of Obstetrics two years ago, and has furnished clinical material for this department beyond the most sanguine expectations of its originator. Meritorious students are selected to act as assistants, thus furnishing daily and nightly attendance throughout the year.

During the past winter every member of the graduating class (which numbered thirty) attended at least three cases of labor through the influence of this dispensary, and many of the middle-year students received benefit also. A young man who is studying with me, for example, attended four cases—one of forceps delivery in which he was assisted by the professor—although he was only in the second year's course. So that, as a "brilliant success," I believe the Obstetrical Dispensary of the University Medical College of Kansas City deserves equal credit with its Eastern followers.

I am, my dear doctor, your friend,

EMORY LANPHEAR.

P. S.—Careful examination of the accompanying catalogue will convince you, I am sure, that some of the schools in the East might well gather a point or two from Western brethren.

E. L.

[We haven't any doubt of it.—Ed.]

SALICYLIC ACID.

IN the last few years the number of new antiseptics, and other preparations, has increased to such an extent that I am inclined to say that they are rather perplexing to young physicians, and indirectly lead them to ignore the old remedies which have been long ago proved, and the physiological action of which is already known. Some physicians do not appreciate the usefulness of the acidum salicylicum, therefore I wish to state some formulæ where acidum salicylicum, in a variety of diseases, gave favorable results:

1. For unclean wounds, as a fomentation :
R.—Acid. salicylici gr. xv.
Aq. destillatæ ʒvj.
 2. For carbunculus, as a powder or a dressing :
R.—Acid. salicyl. ʒj.
Aq. destil. ʒiv.
Glycerini pur. ʒij.
 3. For herpes, as a rubbing :
R.—Acid. salicyl.,
Spirit. lavandulæ āā ʒss.
Spirit. vini gall ʒiij.
 4. For angina or catarrhus pharyngi, as a gargarism :
R.—Acid. salicyl. ʒj.
Kali chlorici ʒij.
Aq. destil. ʒj.
 5. For aphthæ, for rinsing the mouth :
R.—Acid. salicyl. ʒss.
Aq. destil.,
Spir. vini āā ʒiss.
Aq. rosarum ʒiij.
 6. For laryngitis crouposa :
R.—Acid. salicyl. ʒss.
Aq. destil. ʒj.
Syr. rubi idæi. ʒv.
 - S. Omni hora cochl. des. (Take it warm.)
 7. For pneumonia, to lower the temperature :
R.—Acid. salicyl. ʒij.
Fiat pulv. ; div. in dosis No. 5-8.
S. 4 de die pulv. unus.
 8. For rheumatismus articulorum :
R.—Acid. salicyl. ʒij.
F. pulv. ; divide in dosis No. 10-16.
S. Bis de die pulv. j.
 - Or :
R.—Acid. salicyl. ʒiv.
Spirit. vini, q. s., ad solut.
Aq. destil. ʒv.
Syrup cort. aur. ʒss.
 - S. Omni bi hora cochl. mens.
- As acid salicyl. is converted in the blood into natrum salicylicum, the formula may be as follows :
- R.—Kali jodati. gr. xl.
Natri salicyl. ʒiij.
Syr. cort. aur. ʒj.
Aq. destil. ʒvj.
 - S. 4 de die cochl. des. To be taken in a wineglass of water.
 9. For seborrhœa, as a lotion :
R.—Acid. salicyl. ʒj.
Aq. destil. ʒv.
 10. For combustio, as an unguentum :
R.—Acid. salicylici ʒss.
Unguent. simpl. ʒv.
 11. For eczema, as an ointment :
R.—Acid. salicyl. ʒij.
Tr. benzoës ʒj.
Ung. emoll. ʒj.
 - S. Unguentum.
 12. For hyperidrosis : *Vide THE TIMES AND REGISTER April 4, 1891, p. 284.*
 13. For catarrhus vesicæ (chronic), as an injection :
R.—Acid. salicyl. gr. vij.
Aq. destil. ʒvj.
 - Or :
R.—Acid. salicyl. per se 5-10 gr.
Three or four times a day.

14. For clavus (verruca) :
R.—Acid. salicyl. ʒj.
Ext. cannab. Indicæ gr. x.
Collodium ʒj.
- S. Apply to the affected part with a camel's-hair brush daily—at morning and evening.
15. For fever :
R.—Acid. salicylici ʒss.
Aq. destil. ʒvj.
Syr. cort. aurant. ʒiv.
- S. To be taken in three doses during the day.
16. For typhus abdominalis :
R.—Acid. salicylici ʒij.
Aq. destil. ʒvj.
(Syr. cort. aur. ʒss.)
- S. Ter de die, c. ni.

I have seen, very often, good results in using acid salicyl. as a substitute for iodoform, especially in wounds, ulcers, and in some skin diseases ; also, in combination with iodoformium.

S. SEILIKOVITCH.

338 SPRUCE STREET.

MALARIAL HEMOGLOBINURIA.

IN regard to your three questions in editorial of April 11 :

1. Malarial hemoglobinuria does occur where *no* medicine has been taken.

2. From histories of cases coming under my care where the first attacks have been mild and no medications used, they observe the same periodicity as the rest of the malarial group, and increase in violence each time.

3. Is covered in the article sent.

The adoption of the quinine treatment I think has lessened the mortality here at least 70 per cent. Preventive treatment is of much importance, as some cases have such a quantity of blood destroyed in the first chill that no medication is of any avail. It never occurs without previous malarial paroxysms, in my opinion and that of all the writers that I have been able to find.

Many cases of hemorrhage from the genito-urinary organs that are only transitory or of little importance, are diagnosed as malarial and spoken of as cures.

Reyes of Cuba, and Feraud of France, are the only writers that I know of that have made a systematic and thorough study of this disease, and they both classed it as hemorrhagic, as they went by the gross appearance of the urine. It occurs in such isolated localities that it is only of late years that it has been thoroughly studied.

The etiology is absolutely unquestionable, as is also the pathology.

It is a most prevalent and fatal disease in many sections of the South, and, in my opinion, is mostly maltreated. The jaundice is most rapid and intense ; the hematogenic origin of which has never even entered the minds of most of our practitioners. So it is jaundice—liver—calomel.

I have heard a paper read advising no treatment in these cases excepting every effort to obtain the toxic effects of mercury, and have seen 10 grains of calomel given every three hours in efforts to produce this effect, interspersed with doses of acid to make it more certain.

I have used quinine in the South for some years, and with a free hand, and have never seen a case where I thought for an instant it caused hemoglobinuria. Large doses do not always produce it. Dr. Ferguson, of this city, had a patient who took, on a

bet, 480 grains at one dose, and did not get it. Fifty or sixty years ago quinine was used to a very limited extent, and they had the same disease. The latest Italian investigations, 1891, with especial reference to this subject, absolutely deny its production.

Why don't it produce the same effect in other diseases where it is used?

I find, as intimated in my article, that I have to use the quinine to a large extent hypodermically.

H. McHATTON, M.D.

MACON, GA.

The Medical Digest.

FRENCH NOTES.

A. E. ROUSSEL, M.D.

DR. TERRILLON in a report of one hundred removals of the breast, arrives at the following conclusions:

1. The danger of the operation is about *nil*.
2. A return of the disease seems to be the rule when the axillary glands have become implicated.
3. This relapse is most common during the first six or seven years after the operation; this period rarely exceeds six or seven years.
4. All malignant tumors and the mixed tumors of the breast should be freely removed; that is, the total ablation of the mammary gland is necessary. The same is true of the enlarged axillary glands when they exist.

5. A return of the disease may be operated upon one or several times, especially when it is possible to effect an immediate reunion of the skin.

This operation relieves the patient; removes for a certain time the ulcerations which sometime secrete a large quantity of liquid; finally successive operations seem to exert a happy influence on the progress of the malady.—*Bulletin de Therapeutique*.

GOLD IN DIABETES MELLITUS.—In the *Chicago Medical Recorder*, J. A. Robinson gives two cases of diabetes mellitus treated as follows: Anti-diabetic diet, and the chloride of gold and sodium, gr. $\frac{3}{16}$, thrice daily. Both cases recovered. In one, codeine, antipyrine, Cleman's solution of arsenic bromide, etc., had been used without benefit.

For excessive perspiration of the feet, Winogradoff advises an application of a five per cent. solution of chloride of zinc. The feet are first washed in tepid water and then the solution is applied by means of a sponge, the surplus being washed off after a few minutes. It is unnecessary to add that the application should be made only by the physician.

—*Med. Record*.

THIERSCH'S ANTISEPTIC SOLUTION.—The extensive use of Thiersch's solution (named after a German surgeon) in many modern abdominal, intestinal and bladder operations conducted at hospitals and frequently at the patient's residence, and in urethral and uterine irrigations performed at the surgeon's office, has induced the writer to recommend the combination of this solution (consisting of salicylic acid 2 parts, boracic acid 12 parts, in 1,000 parts of water), in form of compressed tablets each containing:

Salicylic acid, resublimed gr. 14.

Boracic acid (boric) resublimed.... gr. 84.

Compressed in form of tablets.

To each tablet is added sufficient distilled hot water to measure one pint. The solution may thus be prepared as needed.—*Pharmaceutical Era*.

VON KAHLDEN says that slight degeneration of the renal epithelium is almost always to be found in acute phthisis. He thinks the condition a chronic parenchymatous nephritis, due to the toxic products of the tubercle bacillus. If this view be correct, we should find a similar condition after the use of tuberculin, in animals previously healthy. Truly, the laboratory has still much to do before the clinician can utilize this product intelligently.

CHLORALAMIDE has been used by Robert Main (*Lancet*) for a patient aged eighty years, with granular kidneys and a dilated heart. Thirty grains of chloralamide produced refreshing sleep and entirely took away the desire to urinate during the night. The sleep was refreshing, and followed by a sense of well-being in the morning; but also by a profuse epistaxis, with much congestion of face and neck. He warns against using the drug when the kidneys are so diseased as to interfere with excretion.

PYOKTANIN.—Burghard reports (*Lancet*) the use of pyoktanin in forty-five cases of gonorrhœa, ulcers, etc. He finds the solution recommended by Stilling, 1 to 1,000, to be too irritating for ordinary use. A solution of 1 to 3,000 is strong enough for urethral injection, to begin with, increased cautiously. In treating ulcers, he finds pyoktanin peculiarly well adapted to out-patient practice. Stilling claimed that irritation was due to impurity of the drug, and recommended Merck's preparation; but Burghard found no different results follow when he used Merck's.

At the Middlesex Hospital a case operated on by Mr. Hulke, well exemplified the difficulties that may occur in diagnosis. Mr. Hulke made an exploratory incision into a swelling occupying the popliteal space, which, he said, by its history might turn out to be a rapidly growing sarcoma, in which case it would be necessary to amputate in the thigh; however, it proved to be a suppurating bursa under the reflected tendon of the semi membranousus. Mr. Hulke remarked that this bursa often communicated with the joint, but he was led to hope it did not in the case under consideration, as he could not altogether empty it by pressure.

ETHERIZATION IN LARYNGEAL CROUP.—Dr. Fried. Betz, in *Memorabilien*, April 18, 1891, reports the case of a child, aged eighteen months, that presented the typical symptoms of laryngeal croup. The case appeared so hopeless that tracheotomy was, although proposed, rejected. Dr. Betz then proposed "etherization." Three drops of a mixture of ether sulph. 3 parts, acetic ether 1 part, menthol 0.1 part were ordered to be inhaled ever quarter of an hour, just as chloroform is inhaled. It was hoped that the cold from the evaporating mixture would contract the surface blood-vessels of the larynx, and thus reduce the œdema present. The child was seen again in two hours, and the condition had somewhat improved. The etherization to be continued, three to four drops every half hour. After six hours the condition was unmistakably better, so much so in fact, that the etherization could be dispensed with. A piece of intestine filled with ice was placed round the child's neck. After this progress was so rapid that in twenty-four hours the child was out of danger. In desperate cases one would think the application in this way would not be likely to do any harm, and it would in any case lessen sensibility, and to some extent the torments incident to such a dreadful disease as laryngeal croup.

BLOOD-LETTING.—Besides the mere question of the value of bleeding in the mind of a medical man, there are two other considerations which influence him in his procedure. There is first his own personal reputation to be thought of, for just as the fashion of our forefathers was to "knock down" disease by every lowering measure, so the modern fashion is to "support" the patient. Consequently, if the latter died after bleeding, the doctor knew he would be blamed; but if he killed his patient by over-feeding, alcohol, or drugs, he would be thanked as having done his best. The other objection to bleeding which many men have is that they do not know how to do it; much less can they cup.

—Wilks, in *The Lancet*.

TREATMENT OF SYPHILIS (Dr. Leloir).—The specific treatment should not be prescribed before the appearance of secondary symptoms, and the preference should be given to mercurial frictions; a drachm of mercurial ointment rubbed into the thighs daily for a fortnight, then a cessation for another fortnight, and so on for ten months, after which period the frictions should only be made ten days a month, until the end of the second year. If any cephalalgia persist, forty grains of iodide of potassium daily for a few days will remove it. The internal administration of mercury should be reserved for married women who do not suspect the nature of their malady, for those whose skin is very tender, and for those who want to conceal their disease. Dr. Leloir recommends, in order that the skin may not be irritated by the mercury, that the ointment be prepared with benzoated lard, and that twelve hours after the rubbing to wash and powder the part.

ARISTOL.—I have derived benefit from it in psoriasis, leg-ulcers, sinuses, fistulæ, eczema, ringworm, hyperidrosis, and bromidrosis. I have noticed no reference to its use by others in the two last-named affections. In sweating feet I have prescribed it alone as a dusting-powder; in bromidrosis, sometimes alone and at others combined with boric acid. It restrains profuse secretion and overcomes offensive odor. As diluents or vehicles I have often used with satisfaction the impure carbonate of zinc, the subnitrate of bismuth, the ointment of the oxide of zinc, or of subacetate of lead. A salve containing $\frac{1}{2}$ drachm to the ounce of excipient is serviceable in acne and rosacea, and a suppository composed of 5 grains of aristol with 3 grains each of camphor and lupulin can be recommended for lencorrhœa and pruritus. An aristol gauze has lately been brought into use as an antiseptic dressing. It is made by impregnating gauze with an ethereal solution, and contains from 15 to 30 grains per square yard.

—Shoemaker, *Med. Bulletin*.

THE TONGUE AS A RESPIRATOR.—It is not generally known that nature has provided each of us with the best respirator always at hand in the tongue. For years I have personally relied on this alone, and have recommended this proceeding to many patients. When facing a cold east wind, or breathing quickly the night air, I never quite close my mouth, but purposely keep the lips a trifle parted, and at the same time curl up my tongue towards the roof of my mouth until the tip reaches as far back as the soft palate, and I gently press the arched under surface of the tongue in some degree against the hard palate (a little practice soon makes this easy to do). The cold air then, as it enters the mouth, strikes against the under

surface of the tongue, as well as the floor and sides of the mouth, and is made to pass in a somewhat circuitous manner between the sides of the tongue and the buccal mucous membrane to the pharynx, being thereby warmed in its course, so that by the time it reaches the larynx it is nicely rid of chill, and does not excite cough and catarrh. At the same time a certain quantity of air, of course, finds its way through the nasal passages to the chest, and it is obvious that a larger quantity of cold air can be effectually warmed by this method of procedure than by relying on either the nose or mouth alone. That the large blood-supply of the tongue renders this organ an excellent air warmer must be obvious to all.

—Scatliff, in *The Lancet*.

ANOTHER REMEDY FOR TUBERCULOSIS.—Dr. Franzen, of Berlin, was impressed with the pathological, anatomical, clinical, and perhaps bacteriological similarity of the tubercle bacillus to the bacillus of Lustgarten.

Following this idea he has treated in the Augusta Hospital fifty-two cases of lung tuberculosis with injections of hydrargyrum thymolo-aceticum, and internally iodide of potassium.

He administers:

R.—Hydrargyri thymoli-acetici..... gr. xj.
Paraffini liquidi..... ʒijss.

Tere exactissime.

D. S. For subcutaneous injection.

Of this he injects a syringeful into the gluteal muscles every seven or ten days. After the second or third injection the patient receives:

R.—Potassii iodidi..... gr. lxxv.
Aq. dest..... ʒvij.

D. S. Tablespoonful three times a day.

He sums up as follows:

"1. In the first stages I expect in a short time a decided improvement, which, if persistent, may progress to a cure.

"2. In most of the cases I have seen a more or less important improvement either of an objective or subjective nature.

"3. In the worst cases I have seen no harm follow this method."

TREATMENT OF PENETRATING WOUNDS OF ABDOMEN.—1. All cases of penetrating gunshot wounds of the abdomen demand laparotomy; most others also require it.

2. The operation should be done immediately after the injury if possible, so as to control bleeding before the patient is exhausted.

3. Any time within twelve hours may be regarded as the "time of selection," but the lapse of many hours, or even days, need not prevent operation, since death from septicæmia is likely to occur.

4. A condition of collapse is not an insurmountable contra-indication.

5. The existence of peritonitis demands, rather than forbids, an operation.

6. In gunshot wounds Senn's hydrogen gas test should not be employed, as the indications are *always to operate*; perforation of intestine is not necessary to render the wound fatal. In other penetrating wounds the test may be employed.

7. Laparotomy is, in such cases, comparatively an insignificant operation. Any surgeon of ordinary skill ought to be able to successfully operate.

8. In case of emergency the operation here described can be made without an elaborate set of instruments.

A success can be obtained by the use of only : (a) a knife ; (b), scissors ; (c), needle and thread ; (d), hæmostatics ; and (e), *good judgment*.

—Lanphear, *Med Review*.

AGAINST DIGITALIS IN PNEUMONIA.—We are told that digitalis reduces temperature, is a heart stimulant, slows and steadies the heart's action in pneumonia, and relieves dyspnœa, and consequently should be used, even in the first and second stages of this disease.

It is yet to be proven that it lowers temperature under any circumstances, except where it kills. It also remains to be proven that it slows and steadies the heart's action in the first and second stages of the disease, and that it relieves dyspnœa.

On the other hand, I affirm, and on the authority of eminent observers, coupled with my own experience, that in most cases in the first and second stages it increases dyspnœa, stimulates an already over-stimulated heart, renders the pulse unsteady and intermittent, as Dr. Loomis has said, tends to produce heart-paralysis, contracts the capillaries, and thus adds to the blood stasis in the lungs with increased venous tension and all its consequent train of evils. If pushed in the conditions to which I have referred it will almost inevitably produce death.

Veratria, with morphine and atrophina, until the third stage commences, in most cases, slows the heart's action without depression ; dilates the capillaries, thus relieving the venous tension and the right heart ; relieves dyspnœa ; conserves the vital forces, reduces temperature and lessens the inflammatory process.

If there is dicrotic pulse, and especially from the use of digitalis, veratria, morphine and atrophina will relieve, as I have witnessed in multitudes of cases.

They should neither be pushed to their unpleasant consequences, since the desired results can usually be obtained without.—Carhart, *Jour. A. M. Assoc.*

PLUGGING FOR EPISTAXIS.—Take an elongated quantity of cotton wool, lengthwise of the fibers, which, when doubled upon itself, will be somewhat conoidal, and completely fill the naris it is intended for, especially the posterior end ; but before doubling it upon itself fortifying the cotton by spiral turns of soft thread, such as is used by grocers, then, doubling the mass upon itself you have a cone of cotton, three or four inches long or more, from the smaller end of which extend the strings, which ought to be tied together, the knot to include some of the fibers of the cotton at the ends. Now, if thought necessary, this mass can be saturated with a solution of alum, but preferably it may be anointed with a little lard or vaseline. Now, with a thin probe or knitting-needle in the right hand the mass of cotton is to be caught in its fold at its larger, and what ought to be the distal, end of the cone, while the strings are caught in the fingers of the same hand, and you have now the cone of cotton wool extended upon your probe or knitting-needle and secured in your right hand ; while, with the left hand, the point of the nose can be elevated and with a rather quick thrust the conoidal mass of cotton is carried back, until the yielding sensation is imparted to the hand which indicates that the distal end of the cone has emerged through the opening of the posterior naris into the pharynx. The slender probe or knitting-needle or grooved director, as you please, is now easily withdrawn by giving it a sudden retractive start, and the knotted ends of the strings are then cut off and tucked into the naris out of sight,

to be easily hooked out and grasped for the removal of the cotton plug that it secures in its spiral folds.

It ought to be remembered that the direction of the floor of the naris, when the patient is sitting erect, is directly backward and a little downward, and also that the combined caliber of all the choanæ at the posterior naris is much greater than at the anterior naris. Hence, to plug successfully the cotton conoid ought to be three or four times larger at the distal than at the proximal end when *in situ*. And again, in making the insertion, do so with a quick motion and keep your probe close to the floor of the naris. A trial of this simple method will prove so efficient that I believe the surgeon will ever after resort to it in preference to any other.

—W. H. Daly, in *Brit. Med. Jour.*

THE TREATMENT OF ACUTE VAGINITIS.—Of whatever variety, the distressing local symptoms of acute vaginitis—comprising heat, vesical and rectal tenesmus, painful micturition, and, at times, profuse discharge—can be best combatted, as a rule, by the combination of the wet and dry methods of local treatment. Should vaginitis, however, be secondary to or complicated with endometritis, special treatment is required for the endometrium. The dry method of treatment is more troublesome than the wet, since it requires the active attention of the medical attendant. Its employment, however, will prove more satisfactory in that it cuts short the ordinary duration of the disease, and tends to prevent complications arising from an extension of the inflammation to the uterus and ovaries.

After cleansing the vagina with a douche medicated with borax, a drachm to the pint of water ; permanganate of potassium, sufficient to discolor water ; or bichloride of mercury, 1 to 3,000, the vagina is dusted with aristol, iodoform, or bismuth and boracic acid, and the vaginal walls kept apart with a tampon of antiseptic cotton. The tampon should be removed daily, and the douche and dusting repeated. In the meantime, quietness in the recumbent posture and abstinence from stimulating food should be enjoined and the bowels kept in a soluble state. Vaginitis tends to recur after its apparent cure, on account of the folds of the lining membrane of the vagina retaining the discharge. The treatment, therefore, should be persisted in until all indications of the disease have passed away. Should spots of inflammation persistently remain after the continuance of this method of local treatment, the application of nitrate of silver will be found serviceable.

Of the importance of giving strict antiseptic attention to vaginitis when of specific origin there can be no question, on account of its tendency to extend to the Fallopian tubes and to impair their functional activity, if not to destroy it either through adhesions or suppuration.—Godfrey, *Med. Bulletin*.

ARISTOL IN ATROPHIC RHINITIS.—The use of aristol in the treatment of atrophic rhinitis is, of course, but one factor in the attempt to regain an improved condition in this disorder.

Under all circumstances the first indication would be to get rid of the inspissated muco pus. For this purpose the most preferable, and at the present time the most popular method, is by means of the spray ; and for this purpose, let me say, not alone on my own authority, that the small hand-ball atomizer is as good as a whole Sass outfit.

The spraying material used should be disinfecting to correct fœtor and decomposition ; also, alkaline

because more solvent to the crusts. After the use of the spray, cleanse as much as possible the nares by gently blowing the nose, or by wiping with plugs of absorbent cotton.

Now, as a further step in treatment, we want an agent efficacious as a deodorizer and as a germicide; and, further, one mildly stimulating to the damaged acinous glands—one that, while acting antiseptically, will, at the same time, tend by its effects to increase the watery elements in the nasal secretion. It is to cover this part of the treatment that I recommend aristol as a drug of superior efficacy. It is antiseptic, mildly stimulating, with no unpleasant odor or sensation on application. It is easily applied by means of an insufflator and in its original powder form, in which it is immediately adhesive and partly protective. On the bare and bleeding surfaces left by the removal of crust, it thus forms a kind of improvised antiseptic dressing. The process of granulation seems to proceed with extraordinary rapidity under its use.

In this rapid sketch it has been impossible to go into the details of treatment of this disorder, its complications, etc. The cautery, the curette, the saw, the snare, are all, of course, brought into requisition on occasion; but I take pleasure, in recommending aristol, as to many men who devote special attention to this branch of surgery, I am aware of its having come in the light almost of a discovery.

I have lately been using aristol also as a dusting powder, following the use of the cautery, applied for whatever reason to the nasal cavity.

—W. C. Braislin, *Brooklyn Med. Jour.*

RESULTS OF INJURIES TO THE SKULL.—It frequently happens that after a severe accident, you have no difficulty in deciding the case to be one of fracture of the bone with compression, or after a light accident, one of a simple stun or light form of concussion which will probably recover in a day or two, but on the other hand, cases intermediate between these two classes occur which may baffle the surgeon as to diagnosis, and, therefore, render prognosis impossible.

I have known cases of concussion with loss of consciousness for a few hours only, die of suppuration within the brain. I have known men with extensive fracture of the base walk into the hospital apparently but little hurt, and die within a few days, whilst on the other hand, not rare instances occur in which recovery takes place with a foreign body embedded in the brain or after the most marked signs of extensive fracture of the base with compression.

From the cases which I am about to report to you, we shall gather—

That without serious injury death may result from thrombosis or septicæmia.

That with hemorrhage convulsions occur, or paralysis of separate nerves, or death by compression or shock.

That with paralysis of individual nerves we are not able to say that the power will be regained, even though we have reason to believe the paralysis due to hemorrhage and not fracture. On the other hand, convulsions where general or limited to individual nerves, usually subside.

That there may be the most extensive injury to the bones and yet not much displacement, and without damage to the brain.

That extensive fractures of the base may occur, and that the patient may be in a condition to walk to the hospital.

That secondary abscess of the brain may occur after a long interval of time.

Lastly, that the brain may be extensively damaged, even ploughed up by a bullet, and recovery take place.—Norton, *Med. Press.*

SURGICAL TREATMENT OF PLEURITIC EFFUSIONS.

—It is well known that the usual method of septic infection is from the skin at the seat of puncture, which should therefore be properly aseptified by lotions sufficiently strong to destroy the micro-organisms, and should such not be to the hand of the physician, I would recommend the routine employment of tincture of iodine applied a short time prior to the puncture for some small distance around, as recommended by Dr. Fowler, of Brooklyn.

The other points I would draw attention to, are:

See that the needle is aseptic.

When introducing the needle have the skin well drawn down to ensure a valvular opening.

As the effusion is being drawn off allow the needle to lie obliquely so as not to injure the expanding lung or visceral layer of the pleura.

Septic effusions, whether primary or secondary, usually require surgical aid, and it is in such cases that a difference of opinion still exists, which at once shows that any routine method cannot be employed in all cases. It is, therefore, of importance, that we should be able in a given case to state the treatment which will probably be necessary, whether the moderately simple and safe operation of incision and drainage will suffice, or if it will be necessary to resort to the very formidable and serious operation of extensive rib resection, as recommended by Estlander, or if any of the many intermediate methods recommended may meet the requirements of the case, and I would here state that my experience has been such as to lead me to the belief that it is in a very small percentage of the cases Estlander's procedure is required, involving as it does, collapse of the lung and serious deformity to the patient.

That any one treatment cannot meet with the requirements of septic effusions is sufficiently shown by the very various and different conditions under which such effusions occur, which is best shown by a classification based on pathologic grounds. To illustrate my meaning I cannot do better than refer to the conclusions arrived at by Dr. Henry Bewley, in a paper read by him on this subject, before the Pathological Section of the Royal Academy of Medicine in Ireland, on January 10th, 1890.

1. Empyema is always caused by micro organisms.
2. These are of different species, there being no one specific variety.

3. In some cases ordinary pus-producing and putrefactive bacteria get into the pleural cavity through some opening in the chest wall or lung.

4. Some cases are associated with croupous pneumonia, and are caused by the pneumococcus.

5. Some cases are due to the action of the tubercle bacillus.

6. In some cases of pus-producing micrococci which have in some way got into the blood, but are not, if unassisted able to develop in the body, find in an inflamed pleura or serious effusion a locality suitable for their development, and under their influence a serious effusion becomes purulent.

7. Some cases are pyæmic.

—Heuston, in *Med. Press and Circular.*

MULTIPLE FRACTURES.—In the city October 15, 1889, I assisted at the birth of a boy, in whose cranium I found a very unusual deficiency of ossific deposit in the frontal, occipital and parietal bones; in fact, the whole vault nearly was without bony support or protection. I could see no deficiency in bones of the extremities, but there was double bow-leg as well as anterior curvature. Careful handling of the child was advised. On October 18 (three days later) was recalled to find left arm fractured at the surgical neck. In dressing this fracture the first step was to fix the shoulder by a double figure of eight bandage, one of course placed in front and the other crossed on the back. The second was to adjust a three and a half inch bandage neatly around chest, the upper margin of which was placed closely up into the axillæ. The third was to envelop the arm (and forearm) in a thin layer of absorbent cotton, retained by a lightly applied roller bandage. The fourth was the fitting on of a pasteboard splint, cut out at the elbow flexure and slotted at the top to properly encompass the shoulder, it having been immersed in hot water, over which was snugly wrapped a roller bandage. The fifth was to place the arm against the side, a strip of absorbent cotton intervening to help to trough the arm, then encircled the chest and arm from shoulder to elbow, with a roller bandage finishing by stitching together both this roller bandage and the former named chest bandage both in front and back of the arm as closely as possible, thus troughing and splinting the arm by means of the body. The forearm was then flexed to a slightly acute angle, the hand and wrist being supported and fixed by means of stitching the swing (in which the hand rested) to the chest bandage and anterior portion of the double figure of eight bandage. Dressing removed in three weeks. No excoriations. Union complete. November 6 was recalled, and found right humerus broken a little above the middle. Dressed in a similar manner. November 26 was again called, and found left tibia and fibula broken about middle. After shielding limb with cotton, applied a light plaster cast to limb, fixing both ankle and knee, and in this manner correcting, in a great degree (in this leg) both the bow-leg and anterior curvature. June 3 found right femur fractured about middle. Used plaster dressing and long splint. June 30 again found right humerus fractured just above the condyles; dressed it with a plaster cast. In this instance I "succeeded" in getting a moderate external angle, but no impairment of mobility whatever. This fracture was caused by the child raising his arms up over his head, and when bringing them down had struck the long splint yet on the right leg. August 30, two and a half months after its former fracture, I found right femur again broken at old site, caused by child being thrown out of a wagon. Dressed as before. Now, gentlemen, about two weeks ago this child was brought to me on account of a skin disease, at which time his mother agreed to bring him to day that I might here present him, but this absence is thus accounted for: On December 31 this little one had nursed and gone to sleep on his mother's lap, and had let the left arm drop down between two rungs of the back of the chair, so that when the mother arose the arm caught, and was fractured with an audible snap, this time just above condyles. Gave the mother Churchill's Syr. Hypophosphites for two months after confinement. Distinct crepitus was gotten at each time of these fractures. There was no unusual thickening at site of union. Child has always looked well, and has grown as others ordinarily do.—Harvey, *St. Jo. Medical Herald*.

ARISTOL.—Dr. Alois Pollak recommends aristol as an antiseptic and as a remedy in various skin diseases, on the ground of experiments made in numerous cases. Inasmuch as this substance is insoluble in water, he employed it chiefly as a dusting powder, or in ethereal solutions or ointments. For obvious reasons, it cannot be utilized for disinfection of the hands, instruments, and the site of operation, or as an antiseptic during the operative procedure. On the other hand, it is very serviceable for the treatment of wounds after operations, or of neglected injuries. It has the great advantage of being effective in small quantities, so that wounds need only be covered with a thin layer; if desired, it may be diluted with sugar or milk. In all the cases treated by the author with aristol, the healing process took place without reaction. Fever never occurred, and, if present before operation, it disappeared regularly within the first few days after its performance. There was an entire absence of pains, granulations were developed with remarkable rapidity, and formation of epithelium took place promptly. The period of healing was remarkably short.

The cases treated with aristol comprise the following:

1. Anal fistula; incision and curetting; tamponing with aristol gauze after previous application of the powder. Cure in twenty days.

2. Abscess in the gluteal region of the size of a fist, incision and insufflation of aristol. Healing accomplished in seven days.

3. Lymphadenites of the neck (tuberculous?); incision, extirpation; curetting; application of aristol in powder and tampons. Eight days later, fresh tubercle novules in the granulations and cicatrix. After a second enucleation and the use of aristol, healing took place.

4. Periostitis of the mastoid process; incision, curetting, followed by application of aristol powder. Cure on the eleventh day.

5. Injury of the thigh by a rusty nail; wound has a discolored suspicious appearance, is covered by gray, necrotic granulations; curetting and application of 5 per cent. aristol ointment. Cured in fourteen days.

6. Necrotic ulcer, in consequence of a contusion; incision of the undermined margins; application of aristol powder. Healing ten days later.

In addition to these cases which are reported in full, the author mentions four minor operations for tumors; three extractions of foreign bodies; a wound inflicted by a pen dipped in ink; a lacerated wound of the scalp, with exposure of the bone; three cases of purulent adenitis; three phlegmons, and several cases of buboes, all of which were successfully treated with aristol.

As regards the employment of aristol in the treatment of cutaneous diseases, he cites the following cases:

Eczema Scrofulosum.—Among ten cases, no curative effect was produced in six; in the remaining four it was slight. Hence, aristol is not to be recommended in this disease.

Eczema Marginalum.—In this affection, an excellent result was obtained, especially in old neglected cases, from the use of a 10 per cent. ointment with vaseline.

Varicose Ulcer.—A 5 per cent. ointment of aristol and vaseline was employed with advantage.

Pernio.—In the majority of cases a 10 per cent. solution of aristol in collodium, and later aristol plaster, proved very effective.

Owing to its convenient manner of application, aristol seems especially applicable for the physician's use in his office practice.

—*Deutsche Medizinische Zeitung*, April 2, 1891.

EXTRA PERITONEAL HYSTEROPEXY.—Fixation of the uterus to the abdominal wall may be executed in two ways, by the aid of a preliminary laparotomy, or without opening the peritoneum. The latter can be done by simply suturing the uterus to the abdominal wall, as appears to have been attempted first by Marion Sims in 1859, or by Caneva's process; that is, by first incising the linea alba down to the peritoneum.

I have put in practice these two procedures in the treatment of prolapsus uteri; once by the ventro-fixation without incision, and four times by Caneva's method. Sims' operation is not a sure procedure. I have had a relapse at the end of twenty days. It is true that the uterus was only fixed by a single thread, which I removed too quickly. Caneva's method has given me excellent therapeutic results, seven, four and one-half, three and one-half and one and one-half months after operation. I have undertaken the extra-peritoneal hysteropexy by preference, because when I published my first case, I believed that I had the first idea of the extra-peritoneal suture, while later I have found unjust the accusations directed against this operative procedure; besides it is simple and rapid.

The patient having been prepared as for a laparotomy is placed upon a table similar to that employed by Trendelenburg for the hypogastric cut. When the patient is asleep an assistant introduces two or three fingers into the vagina, and pushes the uterus up towards the abdominal wall. Utilizing the uterus as a point of *appui* and guide, a cutaneous incision is made of five to eight centimeters. The linea alba is incised to the same length. The pelvis is then raised until the axis of the body makes with the plane of the table an angle of about 45°. By this manœuvre, that disembarasses the operative field of the omentum and intestines, the fingers pressing into the wound can readily distinguish through the thin peritoneum all the details of the dimensions and configuration of the uterus. Women who have for many years had uterine prolapse have almost no sub-peritoneal adipose tissue, and following with the finger the anterior face of the uterus from the fundus to the neck, one can in a moment distinguish very exactly the line of adherence of the bladder, marked by a difference of the level of the consistence. One centimeter above this point is placed the first ligature; the second fixes the fundus, and the third is placed midway between these two. If the uterus be small, or in senile involution, two ligatures suffice. The suturing is aided by the use of a Reverdin needle, curved or half-curved. The needle penetrates directly into the right muscle, traverses the parietal peritoneum, enters the uterus at the junction of the anterior and lateral faces, penetrates about one centimeter into its thickness (less if the uterus is small), then is brought out horizontally following the way inversely. The thread, (twisted silk, No. 4), are tightened and tied in the wound, left hanging from the wound, and removed about the fortieth day; or, better, cut short at the knot (buried sutures). The integuments are sutured with cat-gut. The operation has excellent sequences. The patients have neither pain nor fever. It is often necessary to catheterize for the first days.

The objections are:

1. The danger of injuring the bladder. There are two means of avoiding this; the exploration by means

of the finger, that shows exactly where the bladder begins and the uterus ends, and in doubtful cases a catheter may be introduced.

2. The danger of wounding the intestine. In the dorsal decubitus, even when the uterus is pushed up to the abdominal wall, this simple manœuvre is not sufficient to relieve the uterus of the intestines, but by elevating the pelvis to 45°, with two fingers in the vagina supporting the uterus, it is glued so exactly to the abdominal wall that nothing, absolutely nothing, can separate the serous covering of the uterus from the parietal peritoneum. I have proved this once by making a button-hole incision in the peritoneum, and once again when I had to make an intra-peritoneal hysteropexy, because the uterus after reduction remained in retroflexion.

3. One cannot see what is being done. The hysteropexy, pure and simple, may become a laparotomy. Whenever, on the contrary, it is necessary to look into the true pelvis, to tear up adhesions, to complete a diagnosis by sight of the adnexa, or to proceed at the same time to an oöphorectomy or a salpingo oöphorectomy, the intra-peritoneal method is indicated clearly, and a simple ventro-fixation is not in question.

Hence, extra-peritoneal hysteropexy is contra-indicated in prolapsus complicated by a lesion of the adnexa; also in adherent retro-deviations, where laparotomy permits other procedures of liberating the uterus. It is also contra-indicated by non-adherent retro-deviations, because one of the elements of perfect adaptation of the uterus to the abdominal wall is the relaxation of the uterine ligaments observed in prolapsus alone. In simple, uncomplicated uterine prolapse, the extra-peritoneal hysteropexy is a simple and rapid operation, presenting none of the dangers attributed to it.—Assaky, *Le Bulletin Médical*.

Medical News and Miscellany.

SMALL-POX is spreading in Cuba.

DIPHTHERIA prevails at Bloomington, Ill.

A DEATH from chloroform occurred at the Samaritan Hospital, London.

CHROMIC acid, mixed with alcohol, exploded, and cost the druggist an eye.

THE *Chicago Medical Record* has lengthened its name, and is now the *Recorder*.

HUNDREDS of Alaska Indians have died of influenza, that is still prevalent in Kodiak.

FLOYD V. BROOKS, M.D., has removed to No. 465 Florida avenue, N. W., Washington, D.C.

THE smuggling schooner Halcyon is said to be on her way to the Pacific coast with \$1,000,000 worth of opium on board.

AUSTRIA is about to appoint female physicians to the hospitals for Mohammedan women in Bosnia and Herzegovina.

INFLUENZA has reappeared in Edinburgh and Glasgow; while Paisley is recovering from an epidemic of measles.

KAPOSI says that Koch's lymph is not a curative agent, this opinion being based on the use of the lymph in lepra, and other skin diseases.

DURING the last seven years thirty six women have passed the primary examination for physician's license in Japan, and eight have passed the final examination.

MANCHESTER, England, reports the influenza as appearing in a more severe form than in 1890. In the North of England it prevails extensively.

DR. ERNEST HART, of the *British Medical Journal*, visited Japan in March, where he met with a cordial reception from the physicians of that country.

THE catch of cod at Finnmark is said to be the largest known; and Norwegian oil will hence be more plentiful than ever.

FLEAS are said to be effectually routed by dropping a few drops of carbolic acid on bits of paper, rolling them up, and placing them in different places around one in the bed.

A FRENCH pharmacist received a prescription for apomorphine. Not having it in stock, he substituted morphine, and the patient died narcotized. The chemist got three months in prison.

THE Chicago W. C. T. U. has appointed a committee to investigate Keely's method of curing drunkenness. Keely is the chloride of gold man, and he is reaping a harvest, and doing some good.

IN Scotland a curious question has arisen in regard to notification of infectious diseases. Suppose the physician who sends the notification has made a mistake, is he entitled to the fee provided by law?

SACCHARINE and soda, in solution, sprinkled over gooseberry bushes, is said to destroy the grub and to give the fruit a peculiarly sweet taste. Has any one noticed the effect of saccharine on the disposition?

AN Arkansan sued a druggist for giving, as alleged, ergot instead of sarsaparilla. Ten-drop doses of the ergot were alleged to have injured his pregnant wife \$10,000 worth. Judgment was given for one cent damages.

THE Eleventh Annual Meeting of the Lehigh Valley Medical Association will be held at the Mansion House, Mauch Chunk, Thursday, June 25, 1891. The address will be given by Prof. H. A. Kelly, of Johns Hopkins University.

A QUESTION has arisen as to whether lead miners ever suffer from lead poisoning. A writer in the *Lancet*, who practices among the Australian lead miners, says that they suffer very frequently from lead poisoning.

CHLAPOWSKI reports the death of a woman from one 15-grain dose of salol. The patient became restless and unconscious, pupils dilated, pulse irregular, constant vomiting, urine dark and containing salicylic acid. The case had been one of gastro enteritis.

A JAPANESE physician in Yokohama has been charged by a patient with an assault while the latter was under the influence of an anæsthetic. *Sei i-kwai*, commenting on this case, cautions physicians against the use of anæsthetics except when another physician is present.

A PASTE WHICH WILL STICK ANYTHING.—A paste which will stick anything is said by Professor Winchell to be made as follows: Take two ounces of clear gum arabic, one and one-half ounces of fine starch and one-half ounce of white sugar. Dissolve the gum arabic in as much water as the laundress would use for the quantity of starch indicated. Mix the starch and sugar with the mucilage. Then cook the mixture in a vessel suspended in boiling water until the starch becomes clear. The cement should be as thick as tar and kept so. It can be kept clear from spoiling by the addition of camphor or a little oil of cloves.—*Meyer's Druggist*.

NEW YORK druggists are very cautious in the sale of poisons. A Philadelphia professor recently found it impossible to obtain a half-ounce of chloroform to remove a grease-spot from his coat until he had written a prescription that would pass the pharmacist's scrutiny.

DARBY AND JOAN.—A discussion as to aged couples in the workhouse having special rooms allotted to them took place at the Middleborough board of guardians, and it came out that the board were compelled, should the couples desire it, to provide apartments; but, as a matter of fact, they never desired this accommodation, but preferred to live apart.

RUSSIA has queer laws and regulations. Until recently women could not study pharmacy in that country. As it is now, a druggist who has female apprentices can not also take male students. Perhaps this is done through sympathy for the boy who would have all the heavy work to do and none of the light, if a girl was in the store.

A PROPHYLACTIC measure against plumbism is advocated by Miura. He advises workers in lead, at each intermission in work—particularly before meals—to wash the hands with tartrate of ammonium. By these means much of the lead that would otherwise find its way into the system is removed. Washing with soap and water has long since been found a very useful preventive; its cost is slight, and it is always to be found with that minimum of personal exertion that is the first essential in a prophylactic to be used by the workingman.

THE Paw-Wop Botanic Medicine Company is said to be doing a missionary work among grocers, similar to the green goods men. Their agents are said to sell a bill of groceries at fabulously low figures to the grocery men; and at the same time a bill of patent medicines; for the latter receiving cash on delivery. The saving on the groceries more than pays for the medicines, and the grocer is away up in G as to profits; but unluckily the groceries fail to materialize. And then the grocer turns in to sell his stuff, and swears he'll never, never, do it any more.

THE following were the operations of the Philadelphia Woman's Hospital during May: Patients treated in the wards, 118; new patients treated in clinics, 477; as follows: Gynecological, 180; medical, 81; surgical, 50; eye, 54; ear, throat and nose, 60; electrical, 35; dental, 17. Visits to morning clinics, 1,907; new patients in out-practice, 40; visits to out-patients, 200; prescriptions compounded, 2,477; births in hospital, 16; births in out-practice, 1; operations in clinic, 22; operations in house, 21; nurses in training, 56.

THE Twelfth Anniversary services of the Philadelphia Medical Mission was held last Sunday evening at Bethany Presbyterian Church, Twenty-second and Bainbridge streets. The Rev. J. Wilbur Chapman, D. D., pastor of the church, presided. After the devotional exercises he made a few remarks, and said he took a great interest in the Medical Mission; that it would be the blackest darkness in that section of the city were it not for the practical work of the mission. The annual report showed that there had been much good work done in the way of religious meetings, visits to prisons, houses of ill-fame, etc., and in addition 2,222 persons received medical attendance at the mission or at their homes during the year. In the past twelve years 47,587 persons have received medical care at this institution.

THROUGH the medium of an English journal our valued contemporary in Boston has got hold of an old item from THE TIMES AND REGISTER as to the matrimonial prowess of the trained nurse. It seems, however, that the Boston variety is to be excepted; and, even with the victim stretched upon a sick bed, and therefore helpless, with the unrivaled opportunities for surrounding him with an environment of womanly tenderness and feminine comforts, the Boston nurse cannot secure her prize. Only 15 per cent. of the Boston nurse graduates marry.

THE Dominion Department of Marine has received a report from Dr. McPherson, who was sent to assist sufferers from the gripe on St. Paul's Island, in the Gulf of St. Lawrence. The Doctor says he found Superintendent Campbell, of the Light Station, and the chief engineer suffering from pneumonia, and nearly every person on the island had been affected with the influenza. Besides this, many children were suffering from diphtheria or whooping cough, and in some instances from both diseases. Dr. McPherson left his assistant on the island. The gripe is also epidemic on Magdalen Island. Hundreds of people are sick, and the canning factories have had to be closed, as there were no one to run them.

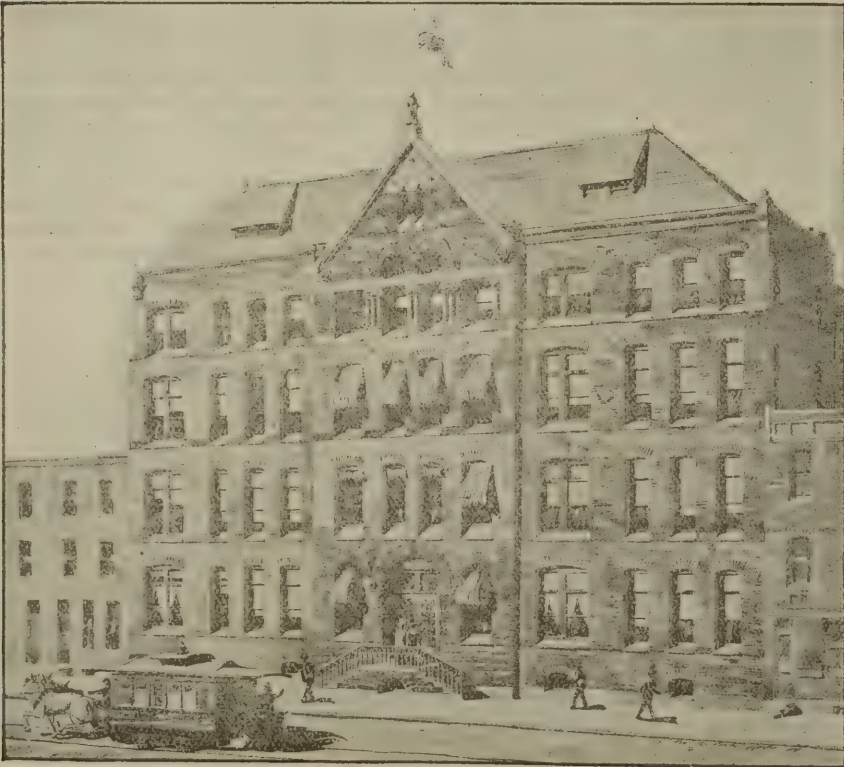
THE State Board of Live Stock Commissioners held a secret session in consultation with Mayor Washburne and Dr. Ware, Commissioner of Health, in regard to the inspection of meat and cattle at the stock yards. The fact that once in awhile diseased meat does get on the market was considered by the conference, and it was the expressed opinion of both the city authorities and the State officials that greater vigilance must be used in the inspection. To this

end it was the unanimous expression that the State inspectors and the city health department should work in harmony, and that some measures must be used to induce the stock yards officials to lend their co-operation more actively.—Chicago News.

WEEKLY Report of Interments in Philadelphia, from May 30 to June 6, 1891:

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Abscess	1	1		Homicide	1		
Aneurism of the aorta	2			Inanition		5	
Alcoholism	1			Influenza	6		1
Apoplexy	15			Inflammation bladder	2		
Asthma	2			" brain	4	15	
Bright's disease	9	1		" bronchi	1	8	
Burns and scalds	1			" kidneys	4	1	
Cancer	11			" larynx		5	
Casualties	7			" heart			
Congestion of the brain	2		7	" lungs	14	10	
" lungs	2		1	" pericardium		1	
" kidneys	8			" peritoneum	6	1	
Cholera infantum			8	" s. & bowels	2	8	
Cirrhosis of the liver	3			Locomotor ataxia	1		
Consumption of the lungs	50		2	Marasmus		21	
" bowels	1			Measles		1	
Convulsions		12		Operation, surgical	2	1	
" puerperal	1			Obstruction of the bowels	2		
Croup	4			Old age	10		
Debility	3			Paralysis	7		
Diabetes	3			Pyæmia	1	1	
Diarrhœa	5			Stone in bladder	1		
Diphtheria	11			Septicæmia	2		
Disease of the brain	1			Sore throat	1		
" heart	17		2	Softening of the brain	2		
Dropsy	1		2	Spina virida		1	
Dysentery	1			Suicide	1		
Effusion of the brain	2			Syphilis	1	1	
Erysipelas	2			Tabes Mesenterica		1	
Embolism, cerebral	1			Teething		2	
Fatty degeneration of the heart	2			Tetanus		1	
Fever, scarlet	1		7	Tumor	1		
" typhoid	6		3	Ulceration of the stomach		1	
Gangrene	4			Uræmia	5	1	
Hemorrhage	1			Whooping cough		6	
Hernia	1		1	Total		233	164

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Whole No. 667.

	PAGE		PAGE		PAGE
ORIGINAL ARTICLES.				THE MEDICAL DIGEST.	
A FURTHER COMMUNICATION ON A NEW METHOD OF COMPRESSING THE SUBCLAVIAN ARTERY: WITH THE REPORT OF TWO CASES. By W. W. Keen, M.D., Philadelphia, Pa. - - - - -	509	A Case of Exostosis of Humerus Simulating Axillary Dislocation. <i>Roberts</i> - - -	519	Pleurisy - - - - -	513
THE RELATION OF IMPERFECT SURGERY TO THE SEQUELÆ OF PELVIC AND ABDOMINAL OPERATIONS. By Joseph E. Hoffman, M.D. - - - - -	510	GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE - - - - -	519	Epilepsy. <i>Kan. Med. Jour.</i> - - - - -	521
CLINICAL HISTORY OF THE EPICYSTIC SURGICAL FISTULA. By John D. S. Davis, M.D., Birmingham, Ala. - - - - -	513	A Case of Ascites. <i>Chunn</i> - - - - -	519	Remote Effects of Sunstroke. <i>Barlow</i> - -	521
SOCIETY NOTES.		MEDICAL AND SURGICAL SOCIETY, OF BALTIMORE - - - - -		PRACTICAL POINTS FROM THE MEDICAL WORLD - - - - -	
PHILADELPHIA COUNTY MEDICAL SOCIETY, 517				Treatment of Tuberculosis. <i>Shade</i> - - -	
The Relation of Imperfect Surgery to the Sequelæ of Pelvic and Abdominal Operations. <i>Hoffman</i> - - - - -	517	Peculiar Visual Disturbances Caused by Wearing Glasses. (Binocular Metamorphosis.) <i>Friedenwald</i> - - - - -		Influence of Frost in Yellow Fever. <i>Littlejohn</i> - - - - -	
A Further Communication on a New Method of Compressing the Subclavian Artery, with the Report of Two Cases. <i>Keen</i> - - - - -	518	Atrophic Rhinitis <i>Thomas</i> - - - - -		Sexual Desire in Influenza. <i>Machette</i> - -	
		Traumatic Injuries to the Brain. <i>Chambers</i> - - - - -		Santonine as a Remedy for Anuresis. <i>Spohn</i> - - - - -	
		EDITORIALS.		Ammonium Chloride for Rhus Poisoning. <i>Kemper</i> - - - - -	
		LOUIS PASTEUR AND HIS CONTRIBUTIONS TO MEDICINE - - - - -		Two Cases of Idiosyncrasy to Quinine. <i>Collins</i> - - - - -	
		ANNOTATIONS.		Rigidity of the Os Uteri. <i>Tureauud</i> - - -	
		An Iowa Quack - - - - -		Local Anæsthesia. <i>Richardson</i> - - - - -	
		Examination of Dixon's Toxic Solution Extracted from a Tubercular Lung of a Cow		Anal Fissures. <i>Duplay</i> - - - - -	
		A Serious Charge - - - - -		Ozonized Air. <i>D'Arsonval</i> - - - - -	
				Pregnant Women. <i>Gilbert</i> - - - - -	
				MEDICAL NEWS AND MISCELLANY, 527	
				NOTES AND ITEMS - - - - -iv, xii	

Original Articles.

A FURTHER COMMUNICATION ON A NEW METHOD OF COMPRESSING THE SUBCLAVIAN ARTERY: WITH THE REPORT OF TWO CASES.¹

BY W. W. KEEN, M.D.,
Professor of the Principles of Surgery, Jefferson Medical College, Philadelphia.

I DESIRE to call the attention of the Society to the method which I proposed some time since for controlling the circulation in the upper extremity by elastic compression of the subclavian artery. (*Transactions Philadelphia County Medical Society*, February, 1890.) This, it will be remembered, was effected by a pad over the subclavian, held in place by the ordinary rubber bandage of the Esmarch apparatus; the elastic bandage being carried from the chest over the back, and then alternately between the thighs and in the opposite armpit.

Not long after I made the suggestion I made a trial of it for my friend Dr. Hearn, in the clinic at the Jefferson Medical College Hospital. In this case the application was a failure. The failure, I think, arose from two reasons. First, the man had a very prominent clavicle and a deeply-seated first rib; and, secondly and chiefly, the pad used was the ordinary roller bandage. The conical graduated pad, as suggested by Dr. Parkes below, is far better.

I received a letter from the late Prof. Charles T. Parkes, of Chicago, dated October 24, 1890, recording his use of it in another case in which the absolute control of the subclavian was almost a *sine qua non* for the perfect operative procedure, and in which the method, submitted to such a crucial test, succeeded

so well that I venture to quote from his letter. I need scarcely point out that all our former methods for controlling the artery would not have given such command of the circulation as to make the deliberate dissection and ligation practised by Dr. Parkes a possibility:

"Allow me to congratulate you on the perfect success of the plan recommended by you for the control of the circulation in the upper extremity. The adoption of it yesterday enabled me to carry to a successful issue an operation for the relief of an immense traumatic aneurism of the axillary space, following a laceration of the axillary artery by a bullet from a heavy 45 caliber revolver. After the application of the rubber band in the manner you recommend with a compress over the subclavian artery, I laid the aneurism wide open, cleaned out all the clots, and finally found a large tear in the artery, and applied a ligature above and below it without the patient losing any blood. Twelve hours after the operation circulation was so far restored in the limb as to make a successful termination almost certain. I attribute the ease and readiness with which the difficult procedure was accomplished to the perfect control of the circulation permitted by the adoption of your plan. It is certainly of great value. If an amputation at the shoulder-joint had been required, it could have been done without the loss of a drachm of blood.

"No more trying test could be given to the method than the case in which I used it. A traumatic aneurism in the axillary space from a large wound in the artery is certainly one of the most difficult things we have to deal with. The application of the bandage in this case enabled me to work deliberately and with perfect ease. No motion on the patient's part can displace it.

"I think the character of the pad used under the bandage and over the artery has much to do with the

¹Read before the Philadelphia County Medical Society.

success of the method. This pad should be somewhat in the nature of a graduated compress, small enough at its apex to fit into the interval between the clavicle and the first rib, and yet thick enough and firm enough to reach well above the clavicle and the side of the neck, so as to take all the pressure off the rubber."

To answer this purpose I have had made a wooden pad. The beveling at the top is for the purpose of enabling the rubber bandage to hold it in place and prevent its slipping either inward or outward. The two holes at the sides and end are for a removable handle, resembling a two-pronged fork, with which to hold it while applying it.

I have tried a similar but larger pad for the iliac arteries, but so far its experimental use has not been satisfactory.

THE RELATION OF IMPERFECT SURGERY TO THE SEQUELÆ OF PELVIC AND ABDOMINAL OPERATIONS.¹

By JOSEPH E. HOFFMAN, M.D.

SO much has lately been said and written relative to the results and, therefore, to the justifiability of abdominal and pelvic operations that it is necessary for the candid critic and honest operator to stop and consider what on the one hand is the exact status of the repentant critics and of their changed attitude toward the position and merits of surgery, and on the other how far inexact methods are accountable for some of the failures and misfortunes of what would otherwise be a field of almost unprecedented brilliancy and encouragement in the results that have been obtained in this branch of surgery.

In the first place it is to be noted that of all the men who have gained prominence in any of the various domains of surgery in general, not one has abandoned that specialty from a surgical standpoint in order to treat it empirically by any other method. Sir Henry Thompson, for instance, has not departed from the exact surgery of the bladder in order to destroy its calculi by solvents or electricity; Mr. Macewen, bone surgery; or Schaeffer, orthopædics. What is meant to be here illustrated is that when a man has once chosen a specialty and worked up to that specialty by an experienced gained by natural selection and application, his specialty has become so much a part of him that its abandonment is just as impossible as the negation of the laws of gravity. His training makes it the law of his mental gravity, and the same laws apply to it as to weight and inertia in the physical world. The greater his experience, the longer his training, the more certain is he in regard to the limitations, the requirements, the possibilities of his work, and as a result of all this his position, when taken, is an entrenched one, from which he is not to be moved and made a weathercock of every shade of opinion, whether of madmen, fools or philosophers, for none of these are apt to speak from a practical experience, in surgery at least, and practice, not theory, has made surgery what it is.

That there are specialties in surgery has come about by the consensus of opinion among surgeons in general, and physicians, strictly so-called, that there is need of them. The specialist in any branch is the living embodiment of the necessity of his work. To whom then is the title of "specialist" to be applied? In each branch confessedly, to those who work conformably with their expressed sentiment, or if not

teachers whose line of procedure is uniform, and the result either of their own experience wrought out by laborious painstaking, or conforms with that of other expert workers in the same line.

To that class of see-saw workers, who anon are this and anon are that, the name specialist should be applied. For accurate exact surgery, we cannot look to the electrician or the dabbler in it. If one condemns a procedure to-day and extols it to-morrow we are brought to the point of inquiry, which view is correct, which has the vantage of observation? or perhaps, is either expression of any value whatever? or is the change made like that of the sleight-of-hand man to puzzle his audience and bring in a set of new admirers to be pleased by the rare and startling exhibition of surgical acrobatics, a surgery in which the constant is differentiated out of sight by the variable.

These inquiries and lines of thought are suggestive of some of the causes we have to consider in the relation of imperfect work to the sequelæ of abdominal and pelvic surgery. What has been said of experience as a necessity for a firm faith in the necessity of any special branch of work, is true with just as much force when the ability to do such work is considered. The appalling eagerness with which men with only a diploma as a justification and a safeguard from the hand of the law to do abdominal surgery, is one of the startling features in the history of this work. In no other branch of the art has there ever been any approach to such audacity. That fools rush in where angels fear to tread has never been more aptly illustrated. Training has been, nay still is, rejected, while the work is sought, and if the case is found willing to be offered up, an offering to the prurient itch of a surgical pretender, the case is at once reported as a wonderful cure in the hands of a youthful aspirant, or if unsuccessful is recorded, heralded, and posted up as a warning against all surgery in general, and against that surgeon in particular, who has been rash enough to loan both his instruments and experience to a neophyte with no other experience than ingrown toe-nails and vaccination, now hiding and excusing himself and his failure behind the experience of the too easy friend, who by a mistaken kindness has martyred both himself and surgery and done both an irreparable injury. I take it that it should be the rule of all surgeons to assist no one who has not studied, observed and assisted in such work. There is no excuse or reason here for men to begin with all the faults and errors of the early operators, and again work out the technique of this branch of surgery in a series of failures in calamities that once well-nigh led to its abandonment. The work of such men cannot be other than imperfect, and must reflect upon surgical interference in these affections in the minds of the uncritical and unthinking. Another class of operators to be carefully watched, is those who, by fair means or foul, are bound to attain prominence. These men have lain in wait for operations, as the moonshiner for a cloudy night, to bring themselves into prominence, let us say notoriety. These men have opened abdomens, not to operate, but to do the first step of an operation. I can this moment put my hand on such a case, in whom nothing was found wrong, but there was a chance to perpetrate a pet fad, and the woman is now dragging out an existence after three subsequent operations, all the results of the first unnecessary tinkering. If we are to criticise abdominal surgery, let us not do so with the results of such operators and their methods before our eyes. Let us rather criticise the crude methods and cruder morals, or, if you please, the code that tolerates apprentices

¹ Read before the Philadelphia County Medical Society.

and dabblers to do with the bodies of our patients, for the like of which we would ruin the reputation of our tailor or well-nigh mob a cobbler. That such surgery has been overdone is just as true as it is that it has no right to be considered surgery at all. And just here it is to be said that among men of this class, I mean those who have done the kind of work just referred to, we are bound to find our latter-day conservatives and repentants. Of all those who have gained and kept a name as foremost in the rank of abdominal surgeons, we find no recanters. These are almost always to be found in the lines of failure or discouragement or embarrassment. If a man has made blunders he is a fool not to perceive them, or if the real spirit of surgery is beyond him, and he feels it, he alike is bound on the one hand to retrieve past misfortune by so-called conservatism, sitting on the *pons asinorum* watching the stream of surgery flow by, and with it the hopes that he no more has chance of realizing. On the other, having neither the spirit of surgery within him nor the courage to attain it by drill and application, nothing is left for him but to be a dissenter, to decry all surgery as mutilation, nothing justifiable but conservatism. From this standpoint I make the plea that each one of us, before he condemns surgery, its justifiability or its results, shall judge of them all. As sensible men and women, saying that we are in need of surgical attention, to whom shall we go? To the apologists for their work, to those who have operated themselves into repentance, who have made an experience only to regret it? Certainly not. Experience and judgment in this work is no more to be gotten in lumps, than can knowledge be bought by the wagonload of books.

If there has not been an antecedent experience from which special knowledge has been differentiated, this special knowledge, though it may be wide enough theoretically, practically is cramped and dwarfed. The wider the general experience, the more exact will be the special. Having considered the class of operators we must look to for errors and repentance, let us look at the work as surgery simply, not in the light of miracles it is supposed—and often promised—to work. Miracles nothing human can perform. No surgeon has a right to promise an absolutely certain result in every case. I have too frequently heard promised, "The operation will make you a well woman." Patients are persuaded into operation when they should be left to choose it for themselves. I have nothing but condolence, may be contempt, for the surgeon who has to persuade his patients to be operated upon. Herein comes a great deal of the blame of surgery in the abdomen and pelvis. Who ever heard of a surgeon's having to persuade a patient to put a splint upon a broken leg or a ligature around a bleeding vessel? The indications for every operation should be plainly stated, and the patient, or her responsible friends, be responsible for the decision for or against operation.

The disasters of operation, on the other hand, ought not to be attributed to the inherent danger of abdominal or pelvic interference. We are to remember that, as a rule, except in extreme hemorrhage and in diseases implicating the kidneys, bladder, or ureters, abdominal operations ought to be, as a rule, successful. It is well for all aspiring operators, and for many who consider themselves established, to ponder well the words of Savage. He says: "I think we ought to get into our minds, as a prominent idea, the view that after an abdominal operation a death should be considered to an extent as preventable, and that when one does occur, we should hold

with ourselves a moral inquest as to the cause, how it might have been prevented, and whether, in any way, it was associated with aught relating to ourselves. As time goes on, I am more persuaded that in the question of success or failure, less and less depends on the patient, her conditions and surroundings, and more and more on ourselves and the attention to certain details which have been found to be essential." With such a standard as this a man cannot fail to do the best possible work. High ideals, though they never be quite realized, are a safeguard against the nauseating complacency with which certain operators contemplate their woeful results, blaming either Providence or the nurse, allowing themselves to escape unscathed.

It is well just here to consider Mr. Savage's expression when he says, "Less and less depends upon the patient, her condition and surroundings," for this is at once too wide and, at the same time, widely true. It is just as evident that patients go on suffering time and time again, until they are hopelessly ill, as it is that, if taken earlier, no matter what their surroundings, they could have been cured. This fact must stand out a perpetual contradiction to those who, in charity advertisements for private aggrandizement, laud, in season and out, the over-laudatory achievements of hospital surgery. Right here I want to say that the best results that have ever been gotten in this city in a wide series of cases have been done in private houses, many of them having none of the recognized conveniences either for comfort or ideal cleanliness. The room that the patient occupied was, often, the only clean one in the house; and yet, as a rule, all of these patients get well. We, as operators, have no business to scare a patient into a hospital for our own convenience.

By doing so we bring into the chances of her recovery an additional element of doubt.

In estimating the importance of the sequelæ of any surgical operation, we must compare them with the gravity of the condition for which the operation was done. Generally speaking, promptitude in ridding a patient of any surgical disease is a step toward avoiding after complications as well as primary impediment to rapid, satisfactory work. If a patient is suffering from suppurative abdominal disease, which, by its presence, threatens life primarily by septicæmia, or indirectly by secondary implication of vital organs, the fact that a hernia or fistula remains after operation is no argument either against the advisability of operation nor against the results of the operation. The argument rather rebounds against the critics, and should convince them that early operation, while giving the patient a better primary chance for life, secondarily would leave him in better condition to resist the influences that tend to prevent prompt healing, and, therefore, conduce to fistula and hernia formation. To appreciate these, and other pathological points, a thorough appreciation of the pathology of pelvic inflammation is necessary. A devotee of the ancient doctrines of pelvic cellulitis has no hope of becoming either a skilful diagnostician in, or a surgeon of, pelvic disease, since his supposed pathology does not agree with the actual condition of affairs, and hence he is handicapped from the start, and the incubus of tradition must be fatal to his progress.

In advanced cases of tubal and ovarian disease, theory will tell him to treat the disease by derivative measures, aiding himself, possibly, by closure of a cervix, when lo! the patient grows worse in his hands, and is only rescued by the merest chance by

final resort to the abdominal section. In such cases it is no uncommon condition in which there is such a generally vicious condition that healthy tissue in which to place a ligature can scarcely be found, and the result is a fistula, through which a ligature ultimately is passed. Here only the most careful technique, of making a good stump, cleaning out necrosed tissue for this purpose, and diligence in using accurately all precautions against infecting the ligature while it is being placed around the pedicle, will prevent the formation of fistula, or at least of the conditions that will result therein. Herniæ are cited as a perpetual menace against the propriety of abdominal operation. Women are said to be worse from them than from their original trouble. In these cases the value of personal opinion goes very little to announce the true condition. The surgeon or the critic of surgery who estimates the value of either medicine or surgery by the reports of the patient, will argue from very uncertain and worthless data. Some patients will complain more from a slight hernia than originally they did at the trouble necessitating operation, or at least their complaints are very distinct. In the first they groaned in anguish, begging relief, while at last they repudiate all surgery because they no longer suffer torture at each menstrual period. To this they are frequently encouraged by meddling women, who, never having suffered, cannot appreciate the tortures of disease, or by malevolent professional rivals, who descend to such indecent methods in order to compass the ruin or professional distrust of the community against the operator. As a rule, herniæ and fistulæ especially should be rare. Hernia is a constant danger in fat women, both as primary owing to the uncertain healing of the fat, and secondarily as a result of weakening the abdominal support. Hence, the rule should be in all such cases to keep the patient in bed much longer than is required to heal the incision, and, after getting up, constantly to wear an abdominal support. A failure so to advise is just as culpable as to admit the elastic support over a dislocated patella, and can only occur as the result of sheer carelessness or ignorance of the requirements of this special class of cases. Fistulæ, besides resulting from ligatures, may have their origin in lesions of the intestine resulting from the freeing of adhesions. Fecal fistulæ are rarely persistent, almost never so, and in the great majority of cases can be avoided if a careful watch is had over the bowel involved in the adhesions. Here the result of bad work must result disastrously, both so far as perpetuating the fistula is concerned and in doing damage to the intestine. To obtain perfect results the intestine is so to be mended, not only to prevent leakage of its contents, but also to avoid adhesions compromising its function and conducing to obstruction. In this relation the deaths from intestinal obstruction after operation are to be considered. In the hands of experienced operators this rarely if ever happens, and if it occurs it is recognized and relieved. One death occurring from such cause coming under my knowledge was the direct result of placing the patient shortly after operation in the care of a physician without any experience whatever in a surgical way. The complication accordingly was not understood, and by the time surgical aid was sought the woman was practically dead. Imperfect after-attention of surgeons eager only to operate, has been and will continue to be the cause of much reproach to surgery. Until his patient is out of bed and moving about freely, the surgeon has no right to dismiss her as cured. If a hernia occurs after

operation it is the duty of the surgeon to explain its nature, and make early effort to cure it. The earlier it is cured the less will be the obstacles in the way of permanent relief. To have a patient die of operation for hernia, the result of the surgeon's own operation, ought to be a calamity almost unheard of. Nevertheless it ought to be understood that, owing to the size of the sac, and the consequent extent of the adhesions, some herniæ are practically incurable unless at a great risk. One such case is still fresh in my memory, in which, after a long relief, the hernia again returned. The woman was very fat, and with the difficulties of a former operation fresh in my mind I refused another.

There is no use in operating and re-operating in unfavorable cases until at last the patient is lost. Surgery nor the surgeon receives credit, while the patient receives no benefit. Imperfect knowledge of how to drain is at the bottom of many failures in the surgery of the abdomen. I once knew the question to be asked by a man following up the matters of abdominal surgery, very far off to be sure, "How long does the tube stay in—till it smells?" I have seen a tube removed containing more than an inch of coagulated serum, this last in the hands of an operator who ought to know better than now to advise the cleansing of the tube once every twelve hours, or some such long interval. A drainage tube that needs cleansing or emptying only once in twelve hours had better be kept clean in the bag until it is wanted. Such advice as to the use of the tube is worse than worthless. To be valuable, information must come from those who are informed, not from those who are guessing or using the tube under protest or because some one else uses it. It is better not used than badly or carelessly used. Drainage and the conditions that require it must always remain a disputed question, but one fact alone must forever keep its opponents on the defensive, and that is that those who advocate it most have had the most experience with it, and that their cases so treated run a most uneventful course, even in most serious antecedent conditions. One point negating its advantages, in some cases urgently needing it, is the semi-delirious condition of the patient during the first few days immediately after following operation. These patients are unruly and their unrest will disturb the position of the tube, and render it at once irritating and useless. I have two patients in mind in whom I believe the tube on this account would have been a serious disadvantage. In another, in whom I considered it advisable, I removed it once when it had become displaced. I shall never forget the anxiety with which I watched over this patient through several days, fearing the oncoming of peritonitis, and dreading the necessity of reopening the abdomen.

But if the proper use of the drainage tube is essential to success, it is to be remembered that crevices created by desultory breaking up of adhesions at the bottom of the pelvis, having no common outlet by which they may drain, are beyond the reach of a single tube; hence, in appendicitis, for example, the careful placing of an additional rubber tube often gives security when otherwise at the best the end would be doubtful. A case of my own is here vividly before me, and brings out the theory justified by results.

When it is sought to break up adhesions on either side of the pelvis because one side seemingly presents less difficulty than the other, the more difficult should not be abandoned when once begun, unless it is plainly evident that by freeing the simpler side a vantage-point is gained from which to attack the other. Going from side to side but gives two diffi-

culties where but one before existed, and in event of prolonged operation, when completion for the patient's sake must be abandoned or postponed, adds additional complication, and takes away some of the chances of recovery. Such methods are common to inexperienced workers, and must be abandoned if good results are desired.

Incomplete operations are at the bottom of much of the criticism made as to the uselessness of abdominal or pelvic surgery. When an operator removes but one ovary and tube for hemorrhage of a fibroid he confesses to the knowing critic his incompetency to deal with the conditions he meets. He is as likely to cure such hemorrhage by such surgery as to raise chickens from china eggs.

By this it becomes manifest that a lack of resources is fatal to ideal surgery. The surgeon who deserves the name is a man of emergencies. The surgeon in masquerade, like the journeyman actor, tears not his passion but his patient to tatters. By every operation so done a certain number of women whom surgery might save are frightened, and so hindered from receiving the benefits of real surgery.

The easier operations are the bane of the would-be surgeon. Succeeding in one of these, he imagines he has conquered the whole field, and at once rests easy in his assurance. To such men, and their patients generally, absolute failure in their first attempts is a distinct gain, for it frightens them away from the possibility of doing further harm.

Many other points leading to and illustrating the same idea, and showing conclusively where mal-operation and needless operation is most likely to occur, and why, could be multiplied. But this is not necessary. It is plain that that operator only is safe who has first learned by a long and painstaking apprenticeship, thoroughly and patiently, the principles of the work he is to perform; who, grounding himself in the principles, has applied them at the side of capable instructors; who, when he operates, does so for the patient's good, and not for his own glory. Such a man—such men—must both give their patients their best hope, and be the saviours of surgery from its false exponents, who only disgrace it.

The men who get the best results are those who work along safe lines, departing from them as necessity compels, according to the exigencies of each individual case; not those who from the threading of a needle to the cleansing of a tube or the washing of their hands strive to be original. Such originality hides real surgery in a multiplicity of details and paraphernalia, and risks the sufferer to exalt the operator.

PLEURISY.—Egorowski practises punctures in pleurisies with exudation, from the beginning. From the study of many cases he concludes: That the punctures are not contra-indicated in the acute stage, but tend to lessen it, influencing the fever and pain favorably.

In the acute stage they do not cause re-exudation, but favor resorption.

The sooner the punctures are made, the greater the chance of cure. Even when the exudation is small, the punctures are indicated.

Whenever a new exudation is suspected the punctures should be repeated, even every two or three days.

A tubercular basis is not a contra-indication, as it does not change the nature of the exudation.

This method gives the best results, and is to be preferred to all others in treating serous or sero-purulent pleurisies.

CLINICAL HISTORY OF THE EPICYSTIC SURGICAL FISTULA.¹

By JOHN D. S. DAVIS, M.D.,

BIRMINGHAM, ALABAMA.

I MAY be pardoned for the sake of brevity and to prevent repetition in the description of operations performed on the cases herein alluded to, for describing my three methods of opening the bladder for the formation of the epicystic surgical fistula,² and not going into a further and lengthy description of the technique as to position, anæsthesia, use of colpeurynter, toilet, after treatment, etc., because with these you are all familiar.

In old men when there is much distention from retention of urine, due to hypertrophy of prostate, to avoid the dangers of an anæsthetic, I make the opening into the bladder by one plunge with a large trocar or with a knife, the shock scarcely being noticeable.

1. When the distention is great and no intravesical operation necessary, the opening is made with a trocar, withdrawing the stylet, and replacing it with a rubber catheter, after the introduction of which the canula is withdrawn, leaving the catheter in the bladder. It is better to have the canula in place ten or twelve hours before introducing the catheter.

2. The bladder may be opened, when distended, by a direct incision with the knife, in the median line, with cutting edge towards the symphysis pubes. The knife is withdrawn and a catheter is introduced, through the wound, into the bladder.

3. A perpendicular incision, one or two inches, is made in the median line above the symphysis pubes. The recti muscles are separated to symphysis. If the pyramidalis muscles are in the way, the fibres should be cut. The transversalis fascia is divided on a grooved director from symphysis to upper margin of superficial wound. I catch the bladder with a tenaculum on a line with the symphysis, through the prevesical fat, and cut through with a bladder-knife into the bladder with one smooth, clean incision, to prevent undue disturbance of the cellulose-adipose tissue between the bladder and pubes, and avoid infiltration. I have never seen a case where it was necessary to put up the prevesical fat, and with it the peritoneal cul-de-sac. Cutting this prevesical fat prevents its after dropping down over the opening into the bladder, and acting as a valve to prevent easy escape of urine and causing infiltration. And, too, such a procedure gives a smooth incision throughout, and it is almost impossible to have infiltration, even when no drainage tube is left in the bladder, and the urine

¹ Read by title before the Southern Surgical and Gynecological Association, November 13, 1891.

² In an article upon "Epicystic Surgical Fistula for Cystitis," read by title before the American Medical Association, at Newport (*The Journal*, February 8, 1890). I gave the following brief definition of the fistula: Epicystic surgical fistula is the title given to a suprapubic fistula into the bladder, created for exploration, intra-vesical treatment and drainage. A fistula which, acting as an artificial urethra, is capable of giving free access to the inside of the bladder for cystoscopic exploration, and provides a ready, convenient and comfortable means of emptying the bladder at will. It gives the surgeon a competent opening into the viscous for exploration of ureters; intra-vesical applications; drainage in pyelitis and in pyelonephritis.

It constitutes an essential element in the speedy and complete evacuation of the contents of the bladder in all epicystic operations, and imitates nature in the restoration of its own continuity and repair as the pathological changes within the bladder subside.

is left to flow out through the fistulous track and taken up by a layer of absorbent cotton. In making the incision into the bladder, little attention is to be paid to any vein or veins which are sometimes met with. If cut, they bleed but little. The operation is usually bloodless in the sense of hemorrhage. I have operated without the patient losing more than one-half drachm of blood.

I here show you the photograph of the oldest fistula, I believe, on record.

CASE I.

Chronic Vesical Catarrh; Epicystotomy for the Formation of an Epicystic Surgical Fistula. Relieved.—The epicystic surgical fistula was made for Major Nixon, February 13, 1889, in his forty-second year of age; twenty-one months ago to-day. This case has been published in several of the leading American journals. But that you may know, in detail, the full history of this case; the operation, and the result of the fistula or artificial urethra, I will quote his own language, given to me by letter yesterday.

BIRMINGHAM, Alabama, }
November 12, 1890. }

DR. JOHN D. S. DAVIS, Birmingham, Ala.

MY DEAR DOCTOR DAVIS:—In compliance with your recent request, I will herein recount the history of my affliction in as concise a manner as possible, consistent with my experience, or rather my inexperience in such matters.

About the year 1862, while in my fourteenth year, I lost my footing while unloading a wagon, and fell astride of a half inch iron rod, my whole weight went down, with my perineum to the rod. The perineum and urethra were severely bruised, and caused me great pain, which I felt at intervals for a great many years; if, in fact, it is not the immediate cause of all my urethral and bladder trouble.

About the year 1867, while in my nineteenth year, my urethra became very highly inflamed—a trouble which so many young men experience about that age—and I applied to a physician for relief, who recommended the use of a strong solution of nitrate of silver, 20 grains to the ounce, to be injected into the bladder, which was done three or four times. The pain was so intense from the use of this injection that I had to abandon it. A continuous burning sensation in my bladder resulted from the nitrate of silver injection, which increased in severity whenever I became constipated. The only relief I received was derived from the injections of cold water into my bladder. So great would the pain sometimes become that I had to continuously inject cold water into my bladder for three or four days unceasingly. As soon as the water became warm I was compelled to expel it and inject more cold water immediately, otherwise the pain would become excruciating and unbearable. This state of affairs lasted for many years, growing worse every year, notwithstanding I was continuously under the treatment of the best specialist in the South.

About the year 1878, Dr. M. H. Jordan, of Birmingham, pronounced my trouble stricture of the urethra, and treated me for stricture for several months without giving me a particle of relief. Dr. Dubose, of Columbiana, advised me to consult Dr. C. H. Mastin, of Mobile, a noted urethral surgeon. I wrote to Dr. Mastin, describing a few of my symptoms as well as I could, and he, in reply, stated that I probably had a stricture of large caliber, and advised me to make a trip to Mobile for examination and treatment. I went to Mobile and remained with Dr. Mastin, one month after he operated on me, when he dismissed me with the assurance that I was cured. I still felt the burning sensation in the bladder to some extent, but not so bad, as I could get along without having to inject the cold water into the bladder. Dr. Mastin assured me that the cystitis was altogether due to the existence of the stricture, and as he had cured the stricture, the inflammation in the bladder would soon pass off. But, alas! I found this assurance to be erroneous. I grew worse from year to year. My sufferings were so great that, like a drowning man, who, it is said, will catch at a straw, I tried every doctor who held out to me hopes of recovery through his agency. To many of them I paid large fees, all to no purpose, and for no good.

About March, 1886, I met one, Dr. Noll, in Memphis, who was perfectly sanguine of success in curing me. His theory was the same as that of Dr. Mastin, and he said the only cause

of failure in the treatment of Dr. Mastin was due to the method (by dilatation) adopted to obliterate the stricture. He said the stricture should have been cut, and advised an immediate operation. I felt very hopeful of success, and submitted to his treatment. I regret to say that it was much more unsatisfactory than all the rest, as I came near going the way of all flesh. Dr. Noll said he cut three strictures—one being near the neck of the bladder. As the result of this operation I had a very active form of cystitis with enlargement of the prostate gland. For thirteen weeks I had to draw my urine with a catheter, day and night, every fifteen or twenty minutes. Under the careful nursing of Dr. P. L. Bronillette, of Huntsville, I managed to pull through this ordeal, more by the help of God than man, but I could get no relief from my bladder trouble, which continued to grow worse every day, until I consulted you, about the first of the year, 1889. At that time I was in a critical condition, and had despaired of ever getting relief, and prayed to die, that I might, by death, get rid of my terrible suffering. While you did epicystotomy upon me for the formation of a permanent epicystic surgical fistula, I confess, that while I had great confidence in your skill, and believed your reports of cases of cystitis, relieved by the operation, I felt that the operation could, at least, only prolong my life but a few days and give partial temporary relief. The relief afforded me was magical, and I shall never cease to feel grateful to you for preserving my life.

The effects of the fistula are wonderful indeed. In the first place, I am a new man. My bladder, while not entirely well, is free from pain, and growing better constantly. I am in better health than ever before since I was nineteen years old. The fistula gives me no trouble or inconvenience at all, and has never pained me the least bit. I keep it open, as you know, with your silver plug, extending nearly into the bladder. The fistula enables me to irrigate the bladder, without irritation to the prostate gland, at will, which I do every twenty-four hours.

To my great delight and astonishment I have never, regardless of the position of my body, been troubled with any leakage or dripping from the fistula during my daily avocation, and I can do almost any thing in the way of physical labor that any other light-weight man can do. Before the operation I had to wear a rubber urinal strapped on me all the time to catch the constantly and never ceasing urine. Since the fistula was made I do not have the dripping either from the natural or false urethra. I carry my urine and pass it at will, either through the false or natural urethra, mostly through the artificial urethra.

There has been a gradual extension or exfoliation of the tissue at the cutaneous orifice of the fistula until the projecting tissue is about one inch long. It is of uniform thickness all around the fistula and resembles a *stub penis*.

Although the fistula has assumed the appearance of a natural urethra, and it is lined with mucous membrane throughout its entire length, experience has taught me the necessity of wearing your plug in the fistula continuously. What I have often heard you say in discussing the subject before medical societies has been clearly demonstrated to me by the tendency of my own fistula to contract, namely: it is inclined to close up, contract and grow together whenever the plug is left out for a considerable length of time. And the occasional introduction of a sound, or your plug, will not suffice to prevent contraction and render the fistula competent at all times. Trouble will follow if the plug is not worn more than three-fourths of the time, day and night.

On one occasion, while at stool, the belt which holds the plug in place slipped down and allowed the plug to drop into the sink. It disappeared instantly. This occurred before these plugs were kept in stock by the instrument dealers, and several hours elapsed before I could have one made. I discovered, on attempting to introduce the plug, that the mucous lining to the fistula had apparently contracted to such an extent that it was with great difficulty that I at last, after more than an hour's efforts, succeeded in introducing the plug. This clearly demonstrated to me the absolute necessity of wearing the plug all the time. At your suggestion, I have since on several occasions, for experimental purposes, left the plug out for several hours to see the effect it would have on the caliber of the fistula. It universally contracts sufficiently in one hour's time to make it difficult to introduce the plug. The contraction is always more rapid in the cutaneous portions of the fistula than in the vesical portion.

When the plug was first made it lacked about one-eighth or one-sixteenth of an inch of entering the bladder; but I have so gained in flesh that it now lacks about three-fourths of an inch of reaching the bladder. The fistula, in consequence of the increased length of the fistula and the non-introduction of the plug, has considerably contracted in the bladder portion

the fistula unoccupied by the plug. I notice that this part does not show that tendency to close that is shown in the external orifice of the fistula.

The plug will not remain in place unless held there by artificial means. I wear a simple abdominal supporter that I made myself.

My fistula is of so little trouble and inconvenience that I would not allow it to close even if I could be convinced that the cystitis would not return.

I am, very truly, your humble servant,

T. A. NIXON.

Notwithstanding the competency of the urethra Major Nixon is compelled to keep his fistula open to prevent a return of the cystitis. Whatever the exciting agencies in the production of the inflammation in his bladder, he has no trouble in meeting every indication for their removal by washing out his bladder daily by means of a fountain syringe. He introduces a nozzle of the syringe, one to two inches, into the urethra, and allows the water to pass from the bladder through the fistula. If the cause of the inflammation is due to bacterial elements, he prevents their multiplication or return by this intra-vesical douch. By this method the bladder is kept in such a condition as to make it impossible for bacteria to thrive. My experience with many of just such cases has taught me that no such results can be attained in any other way. It is impossible to make direct applications or successfully douch the bladder, per urethra, without great prostatic irritation. Catheterization cannot be done with sufficient gentleness through the urethra to prevent prostatic and vesical irritation. Hence the necessity of the epicystic surgical fistula in all these cases. You observe from the report of Major Nixon's case that he has to wear the plug constantly. Though the fistula is lined with mucus throughout its entire length, cicatrization and contraction will take place if the plug or stem is not worn all the time. When I first made the plug I provided a concavo convex flange and a shoulder to be grasped by the skin. The plug was made round and long enough to fill the fistula within one-eighth of an inch of viscus. The plug was made of silver and provided with a shoulder one-fourth of an inch from the external concavo-convex flange, to be grasped by the skin and held in position.

It was my idea then that the recti muscles would throw the plug out if the shoulder was not provided, by which the skin could grasp it and hold the plug in. The power of these muscles is very great, and would throw the plug or stem out anyway if it was not held in by the abdominal belt. I have discarded the shoulder plug and now use the plug without the shoulder.

This case illustrates what constant drainage will do in an inflamed bladder, when the urethra is within itself competent. And, too, it illustrates the competency of the fistula, at all times and in all positions, to retain and expel the contents of the bladder at will. And last, the use of the plug with a concavo-convex flange in this case has guided the exfoliating tissues at the cutaneous orifice of the fistula to the formation of a symmetrically rudimentary artificial penis. And though we do not, from this case alone, conclude that such a result will always follow the use of the concavo-convex flange, it is to be hoped it may. The exfoliated tissue, surrounding the external orifice of the fistula, is a little over an inch long.

CASE II.

Prostatic Vesical Calculus; Hypertrophy of Prostate; Chronic Vesical Catarrh; Suprapubic Lithotomy and Formation of an Epicystic Surgical Fistula. Recovery.

—This case, a very large man, aged fifty-seven years, was operated on, according to the third method of making the incision, February, 1889. Removed a stone weighing two and a half ounces. The fistula was well formed in thirty days, and he could, when in a standing position, throw his urine four feet from him through the fistula. A plug was never used in this case. The fistula was imperfectly kept by the daily introduction of a short epicystic fistula sound, which I had made for the purpose. It was necessary to introduce the sound every four or five hours, to prevent the fistula from closing. At the end of the fifth month all the pathological conditions had subsided, and I let the fistula close by not using the sound.

The results, as to drainage, etc., were perfect. A point of interest is, that there was constant trouble in keeping the fistula open by the introduction of the sound at intervals. The control of urine was perfect.

CASE III.

Congenital Urethral Stricture; Chronic Cystitis; Epicystotomy for the Formation of an Epicystic Surgical Fistula. Recovery.

—September, 1888, I was called by a physician friend to see a patient with him. The man, aged fifty years, had retention of urine from an impassable stricture of the urethra and enlarged prostate gland. I aspirated his bladder of two and a half pints of alkaline urine, containing pus and mucus. The patient was able to pass a very small stream of urine the next day, and would not be operated on for the relief of the stricture. Three months later I was called to see him, and found him suffering from extravasation of urine into the scrotum, as the result of an unsuccessful attempt to draw his urine the day previous. The contusion, puncture, etc., resulted in an extensive extravasation into the scrotum, perineum, and above the pubis. I found him with a severe chill, temperature 106°, and pulse 140. I resorted to draining the bladder above the linbis by means of an opening made according to the provisions of my first method of entering the bladder. Several days after the suprapubic puncture I performed urethrotomy, and obliterated the penile stricture. The bladder was irrigated with hot sterilized water twice daily for ten days; thereafter, once daily. The fistula was kept open for thirty days, by the three or four times daily introduction of the fistula sound, when the use of the sound was discontinued, and the fistula closed in about ten days. The man made a complete recovery, though I had some difficulty in keeping the fistula open—a difficulty I universally have when the plug is not constantly worn. After the first ten days he was able to retain and expel the urine through the fistula at will. The constant tendency of the fistula to close was controlled to a limited extent by the frequent introduction of my epicystic sound. At that time I had not devised the fistula plug.

CASE IV.

Pyelo Nephritis; Vesical Catarrh; Epicystotomy for the Formation of a Permanent Epicystic Surgical Fistula. Relieved.

—Mr. A., aged fifty-seven years, had been suffering from vesical inflammation for six months. For several weeks before he consulted me he passed his water with much pain. He had rigors and exhaustive night sweats. His temperature

¹The Alabama Med. and Surg. Age, Vol. I, No. 7, June 1889, page 312.

would go up for two or three days at a time, and would be followed by two or three consecutive days of only slightly elevated temperature. He had frequent lumbar pains shooting toward the bladder and hip, retraction of right testicle, and tenderness on pressure over the right kidney. Had frequent desire to urinate, with inability to pass his urine. Urethra competent. Prostate gland was slightly enlarged. Urine contained pus and mucus. Average daily amount of urine, thirty-nine ounces. After the washing out of the bladder, pus would soon accumulate in the viscus, which was conclusive to my mind that pyelitis was causing the progressive emaciation and hectic fever.

Operated May 10, 1889, for the formation of the epicystic fistula for draining bladder and kidney. Bladder was washed out twice daily. Fever subsided on the second day. Patient entirely relieved from pain; fistula well formed. He returned to his home on the thirtieth day. If the pyelitis had been due to stone in the kidney it would not have disappeared so early. And, too, in such a case the fistula would have offered but temporary relief to the bladder. Ever since the operation he has experienced complete relief, except about four weeks—ten days in December, 1889, and about twenty day in August, 1890—when I attempted, on two occasions, to let the fistula close. In December, 1889, he reported to me, weighing twenty pounds more than when operated on, and with a relief of all the symptoms. I removed the plug and allowed the fistula to commence to close. After the third day he felt a return of the symptoms, and on the tenth day I dilated the fistula and reapplied the plug with prompt relief of all the symptoms. In August, 1890, he applied to me to close the fistula as he felt himself well. I removed the plug and irritated the fistula. I sent him back to his home, in Cullman, without a plug. The fistula did not close readily. An abscess formed on the fourteenth day, and was followed by a rapid return of his old bladder and kidney symptoms. I replaced the tube without dilatation this time, owing to the enlargement of the fistula by the abscess, and ordered the daily douches of hot sterilized water resumed. The symptoms promptly subsided and he has not yet had a return of them. He tells me that he has experienced enough with his fistula, and that he will never again attempt to close it. He has the ability of retaining and passing his urine at will. He has intercourse without dribbling and with an infinite amount more pleasure and satisfaction than he had experienced for years before the operation. He wears the rubber plug with a flat flange.

He now has no difficulty with the fistula, and has been thoroughly convinced that he can not get along without it. He wears the plug constantly day and night.

CASE V.

Papillomata with Incontinence of Urine—Epicystotomy for the Formation of the Epicystic Surgical Fistula. Relieved.—Master Claud Kelley, four years old, was brought to me six months ago, to be treated for night sweats and constant dribbling of urine, day and night. Urine contained mucus and pus. Mechanical examination of bladder with negative results. Medicinal treatment did him no good. Did epicystotomy on him four months ago for the purpose of forming an epicystic surgical fistula. The incision was made according to the third method of opening the bladder. Several villous growths were found and removed with the curette and finger-nail. The direct

fistula was formed and kept open by means of the introduction, several times daily, of a sound. Douches of hot distilled water were used twice daily for the first ten days, and once a day thereafter. The little fellow began to improve from the day he was operated on. He is much improved in weight; no dribbling of urine. He retains and passes it at will, and is now enjoying his usual sports. On account of the dislike of the little fellow to wearing a plug I have had to keep his fistula trained by means of introducing the epicystic sound or catheter two or three times daily, and in consequence have great trouble in opening the fistula sufficiently to thoroughly wash the bladder. I had much difficulty the day before I left home. I expect to find it impermeable when I return. If I do, I will not molest it so long as there is no return of the symptoms of his bladder trouble. Should his trouble return, I will again open the bladder and clear it of all growths, and drain it permanently.

This case is one of interest in many respects; but I introduce it here simply to illustrate the difficulty experienced in keeping the fistula competent by means of occasional daily introductions of a sound. To keep in the fistula a sound or a plug for several hours daily will not keep it from contracting. To render it most uniformly competent the plug must be worn at least four-fifths of the time—better if worn all the time.

I can report many cases that I have operated on, in the presence of my brother (the secretary), Drs. Ransom, Hickman, and others in my city and State, who have followed the histories of these cases with me. Two facts may be observed in every case: Perfect drainage, in the first place; and, in the second, it will be absolutely necessary to constantly keep the fistula filled with a plug, to keep it from contracting, and keep it at all times competent.

Epicystic fistula plug is the title that I have given to a device which I have made and used for keeping the epicystic fistula from closing by cicatricial hardening and contraction.

The fistula imitates nature in the restoration of its own continuity as the pathological changes within the bladder subside, frequently causing a too early closing of the fistula. Hence, the plug is made to fill the fistula. When I first began to use the fistula plug I had them made of silver and provided with a slight shoulder, one-fourth of an inch from the flange, to be grasped by the skin and held in position.¹

This shoulder, I thought, was a necessity, in many cases, to prevent the recti muscles from throwing the plug out. Experience has taught me that the shoulder is unnecessary, and does not help matters. The best and most convenient way of keeping the plug in is to wear an abdominal belt or support. The presence of the plug acts only in preventing the artificial urethra from closing, and plays no part whatever in the power of retention and expulsion of the urine.

In conditions of incompetency of the urethra, the artificial opening will not close; but where the pathological cause exists in the bladder, the urethra being competent, the fistula will close as the pathological conditions in the bladder subside.

In cases of pyelo-nephritis, the perfect drainage will soon relieve the concomitant cystitis, and the fistula will close, if left alone, when the kidney disease will give rise to the same symptoms, when not

¹ *Alabama Med. and Surg. Age*, June, 1889, p. 312; *THE TIMES AND REGISTER*, March 22, 1890, p. 272.

continuously drained. In such cases it is necessary to provide artificial means for keeping the fistula competent. When the urine can escape other than by the artificial opening, premature and early cicatricial hardening of the skin will close the outside opening long before the opening in viscus will close. The pseudo sphincter will, aided by the recti muscles, keep the inside portion of fistula competent, provided the opening in the skin may be kept from closing.

I have the plugs now made of rubber, in two sizes.



The illustration, from Messrs. Tieman & Co., who make them for me, is exactly the size of the smaller plug. If, how-

ever, a different size, either with flat or concavo-convex flange is desired, Messrs. Tieman & Co. will make them on short notice. As to what kind of a flange should be universally adopted, I think the weight of evidence is in favor of the concavo-convex flange.

I have frequently shown and clinically demonstrated the advantages of the epicystic surgical fistula. To summarize: It is simple, effective, clean, combined with effectiveness. The plug is indicated for the sole purpose of preventing a too early closure of the artificial canal. It is worn without pain, and is far more satisfactory than the repeated introductions of a sound or bougie to prevent closure, which, when entering the bladder, often does more harm than good.

The three operations for the formation of the epicystic surgical fistula, which I have described, call for so little skill that they are in the reach of every general practitioner, and there is no general practitioner who does not, at some time or other in his professional life, meet with urethral, prostatic, bladder, or kidney conditions which call for its formation, and who must, of necessity, use the plugs to render the fistula at all times competent.

2104 AVENUE G.

Society Notes.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting May 27, 1891.

The Vice-President, DE FORREST WILLARD, M.D., in the Chair.

THE RELATION OF IMPERFECT SURGERY TO THE SEQUELÆ OF PELVIC AND ABDOMINAL OPERATIONS¹

was the title of a paper submitted by JOSEPH E. HOFFMAN, M.D.

DISCUSSION.

DR. M. PRICE: I am fully in accord with the belief that most of our deaths can be accounted for by some want of care on the part of the operator before, during, or after operation. I recall two cases in which the previous care before operation had everything to do with the result. In one, the woman was sent into the house to be operated on. The patient declared that the bowels had been freely moved fifteen or sixteen times on that day. The operation was done,

and it was found that the patient had not had the bowels opened for two weeks. She had an impermeable stricture, which would permit the passage of nothing but the watery contents of the bowel. The fatal result might have been avoided if the patient had been under the care of a trained nurse before the operation. I have seen this accident twice.

Many men who profess to be abdominal surgeons will go to a case of supposed tumor, or some other condition, prepared to do only that operation. They go to do an ovariectomy and a hysterectomy is required. The result is a death. The surgeon must carry with him everything that can be needed. I have seen many hundreds of abdominal sections, and have seen about as many mistakes as most men, and that, too, in the most competent hands.

As to the success of abdominal surgery. Does any one pretend to say that when a surgeon amputates a leg, giving the patient a useful stump, that is not a success? I hold that it is. If we had subjected an abdominal case to such a risk of life, and had left it in such a crippled condition, what a howl there would be on the part of the medical profession! You take a woman who has been lying around, unable to assist herself in the slightest, and you remove the disease and allow her to move around with some little pain, some little crippling of her gait. You cannot expect to make a perfect cure. Many of the objections, and many of what are called sequelæ, are the fault, not of the surgeon, but of the patient's delay.

DR. G. BETTON MASSEY: The attempt has apparently been made to make an apology for surgery. I think that from some points of view the surgery of the abdominal cavity needs an apology. By some we are told that the bad results are due to improper operations, and by others that they are due to the diseases themselves. I would take no exception to that class of bad results in those cases of abdominal disease incapable of being cured in any other way than by surgery. I have been much impressed with the mistake which is the keynote of Dr. Hoffman's paper—that is, the mistake made by surgeons of persuading women to be operated on who do not require any operation. I have seen a number of these patients who, fortunately, have failed to take the advice given by the surgeon. I have now under observation a lady who was persuaded to have the ovaries removed in order that the cervix might be repaired. A little reduction of the congestion and enlargement of the parts in a rather stout patient showed that the whole trouble came from a subinvolted uterus and a hyperplastic enlargement of one side, which was rapidly improved.

DR. O. H. ALLIS: It seems to me that a good deal depends upon who gives the advice, whether an operation should be done or not. A patient comes with sarcoma of the jaw, where nothing but removal of the entire jaw, or at least half, will save life. Although the surgeon urges operation with earnestness, the patient goes away and nothing is done. The delay is fatal. The same is true in strangulated hernia. The patient should be urged to undergo immediate operation.

DR. WILLIAM E. ASHTON: The question of hernia following abdominal section is one of great importance. The surgeon who says that he never has a hernia does not follow up his cases. The majority of herniæ are due to a failure in properly uniting the sheath of the rectus. I do not believe that fat women are especially liable to this accident. The integrity of the abdominal wall depends entirely

¹ See page 510.

upon the sheath of the rectus muscle, and this should be sutured in all cases. I believe, also, that a large number of herniæ are due to getting out of bed too soon. The patient should not get up under three weeks. There is not much benefit in an abdominal support. I have found it impossible to keep any bandage closely enough applied to relieve the ordinary strain. If the patient is doing heavy work, an abdominal support may be of service.

In regard to fistula caused by a ligature, I might mention a clever device told me by a doctor from Texas. He takes a number of horse-hairs, doubles them over upon themselves and ties them together, and passes them into the fistula and turns them around. In this way he often succeeds in bringing away the ligature.

I believe it to be a good plan to have the patient in a hospital, if possible, in order that she may be under observation and control. I do not believe that there is more danger of sepsis in cases operated on at home than in those in hospitals. Sepsis does not come from the atmosphere. Barring the question of control, there is little difference, so far as results are concerned, where we operate.

DR. J. PRICE: Dr. Allis has given an interesting point in reference to the selection of cases and the importance of promptitude. The whole experience of abdominal surgeons is in favor of promptitude in pelvic abscess, and in small tumors of all kinds. I may say in regard to mortality, that if my mortality equaled the number of cases that I find dead when I arrive at the house, I should cease to operate. A man to do abdominal surgery should serve an apprenticeship, not only that he may know what to recognize, but that he may, with specimens in hand, compare them with the histories. With a pair of pus tubes or a pelvic abscess, you can almost demonstrate the number of attacks of pelvic peritonitis that the woman has suffered.

It is all very nice to talk about the sequela of abdominal sections, but the sequela antedates the operation in many cases. I saw to-day, a large cystoma, probably complicated with fibroid. The patient has been counselled by many not to have the tumor removed. I sometimes wish that the general practitioner and general surgeon were like the eye and ear men—they attend to their business and say nothing about anything else.

DR. J. M. BALDY: Unquestionably, many of the so-called sequela occur before the section has been performed. Many, also, are due to incomplete operations. I do not think that any one cause is at fault. I have not found that fistula and hernia are more apt to occur in fat women, nor have I found that suturing of the fascia will prevent it.

In regard to hospitals, I believe in railroading patients into hospitals, if you have well-appointed ones. You have there a better chance to do good work and to watch the patient. Some of my best work, however, has been "alley work," but it has been most anxious work. In these cases I have been forced to permit them to get up in two weeks. In hospitals you can keep the patient in bed. I think that four weeks is not too long.

As to the cause of death, I have seen one death from shock in the hands of another gentleman. I have seen one or two deaths from hemorrhage, but the one great cause of death is septic peritonitis. In some of these cases I have thought that the tube was at fault, but in others there was no drainage. In regard to early operation, if it is an operative case, the operation cannot be done too soon.

DR. CHARLES P. NOBLE: In regard to the cause of death after abdominal section, I may say that in my own experience the deaths, with two exceptions, were due to the fact that the patient was operated on when she was almost dead from disease. I have had three deaths from kidney trouble. In two the condition was not discovered prior to operation. Serious kidney disease is a positive contra-indication to abdominal section involving any considerable manipulation.

I think that our facilities for managing patients are much better in hospitals than at home, and I think that there is every inducement, both on account of the patient and ourselves, to urge her to go to a hospital.

In reference to cellulitis. Most men who do abdominal surgery say that they never see cellulitis. I have seen it, but do not think that it is a common condition. I do not believe that we meet with it as a non-puerperal condition. Cellulitis in the pelvis occurs as does cellulitis in other parts of the body—from infection. I have knowledge of four abdominal operations in which the tubes were examined and found free from pus accumulations. Of course it was not possible to say that catarrhal salpingitis was not present. Large quantities of pus, however, were evacuated through an incision over the ramus of the pubes. They were undoubted cases of pelvic abscess. I believe that this accounts for the fact that certain women recover and bear children after they have had pelvic inflammation complicating labor.

In regard to drainage, it has become my practice to drain in almost every case, and I have seen no reason to regret it. Unless there is a special reason to the contrary, I drain every case. It is often said that unless the tube is cleaned every half hour to two hours the surgeon does not understand drainage. At the Kensington Hospital for Women there has been a series of as many as sixty cases, with one death, where this principle of drainage was not used. In the last thirty three cases (without a death) the drainage-tube was not evacuated oftener than three times in twenty-four hours. My experience with the capillary drain, running over one hundred cases, enables me to say that it is a most efficient form of drainage, and that it is the exception, even in bad cases, to find more than a drachm of fluid in the pelvis when the tube is drained. By this measure the pelvis is continually drained.

DR. HOFFMAN: While a capillary drain will remove the liquid, it will not remove clots. The syringe will. All that my point stated was that cleaning the drainage-tube once in twelve hours is not cleaning it.

In regard to hospitals, I can control my patients better in their homes. The hospital is not a *sine qua non*, and it is not free from danger.

In speaking of advice in surgery, I did not object to real advice. We, however, compromise ourselves by seeking operations, although those things are done. If an operation is necessary we should say so, and tell why it is. If the patient does not accept it, the result does not lie at our door.

A FURTHER COMMUNICATION ON A NEW METHOD OF COMPRESSING THE SUBCLAVIAN ARTERY: WITH THE REPORT OF TWO CASES,¹

was the subject of a paper by W. W. KEEN, M.D.

¹ See page 509.

DISCUSSION.

DR. MILLER: We are certainly indebted to Dr. Keen for his valuable contribution to the technique of operations in which the subclavian artery is concerned. It often happens that while under ether the patient is difficult to manage or vomiting occurs, and then there is liability of displacement of the key if we rely upon that to control the hemorrhage. Several years ago I amputated at the shoulder-joint in a very muscular man. The patient began to struggle, and there was considerable difficulty in controlling the artery. In that case I should have been much more comfortable had I had the apparatus described by Dr. Keen.

I noticed that the subject on whom Dr. Keen demonstrated the application of the apparatus expressed considerable pain. This is probably due to the length of the pad, which pressed upon some branches of the brachial plexus. If this pressure were continued for twenty minutes it might lead to considerable injury.

DR. O. H. ALLIS: The one to whom the care of the artery is given in these operations about the shoulder-joint has no enviable position. I do not know when I have been more alarmed during a surgical operation than when I assisted a friend in amputating at the shoulder-joint. It was my duty to control the artery. I passed my thumbs underneath the flap, and as he cut the muscles they contracted so forcibly that it was with difficulty that I controlled the vessel. In compressing the artery to-night Prof. Keen probably used more force than was necessary, and this will probably account for the pain.

DR. A. HEWSON: I should like to ask Dr. Keen in reference to the effect of motion of the vertebral column on the apparatus. Would not this interfere? I have this evening seen a friend compress his own axillary artery so as to stop the radial pulse. The pressure seems to be made by the lower part of the trapezius muscle acting on the spines of the scapulae, and the latissimus dorsi on the humeri, the humeri being rotated inward and drawn downward and backward. The individual was a spare medical man, and, locking his hands behind him and then straightening the whole upper extremities, he was able to prevent pulsation in the radial arteries.

DR. KEEN: This is the first time that I have seen pain caused by the application of this apparatus. I think that the pressure was too great. It is possible that India-rubber would be better than ebony.

I do not see how movements of the spinal column or of the clavicle would have anything to do with the position of the pad, which presses directly on the first rib.

I have never seen a case like the one detailed by Dr. Hewson, and should not have thought it possible that the artery could be controlled in this way if I had not his testimony to that effect.

DR. JOHN B. ROBERTS submitted a paper on a
CASE OF EXOSTOSIS OF HUMERUS SIMULATING AXIL-
LARY DISLOCATION.

There is nothing especially interesting about the patient, whose photograph I present, except the situation of the bony growth.

The boy, who is about eight years old, fell from a pair of steps, and struck upon his shoulders. As he was supposed to be hurt, his clothing was removed, and the condition shown in the photograph observed. The physician who first saw him at once took it for granted that the deformity was due to the

fall, and that an axillary dislocation existed. He made unsuccessful attempts to reduce the supposed luxation. Shortly afterward I examined the boy, and found that the prominence, mistaken for a displaced head of the humerus, was an exostosis situated at about the epiphyseal line, between the shaft and the head. This, curiously, had never been noticed before by the child or his parents.

Some weeks subsequently I removed the little tumor by means of chisels, and found it to be cancellated bone partly covered by cartilage. The wound healed promptly under the usual antiseptic treatment.

It is needless to say that the symptoms of dislocation were absent, except that there was a rounded mass of bone to be seen and felt in about the situation occupied by the humeral head in subcoracoid luxation.

GYNECOLOGICAL AND OBSTETRICAL
SOCIETY OF BALTIMORE.*April Meeting.*

The President, DR. HENRY M. WILSON, in the Chair.

DR. WM. P. CHUNN related a case of ascites which he treated by tapping and permanent drainage with apparently good results.

DR. B. B. BROWNE operated more than a year ago upon a woman with ascites who also had an abdominal tumor which proved to be papillomatous. There has been no return of either the dropsy or the papillomatous growth. He referred to the many cases of laparotomy and washing out the abdominal cavity.

DR. GEO. W. MILTENBERGER could not see why any malignant tumor should not be able by imitation of the serous membrane to cause ascites. We often see ascites without any definable cause, and when a growth did exist it seemed a very good reason for the presence of the fluid. He referred to the case of a colored woman operated upon by Dr. Neale.

DR. L. E. NEALE said that in the case of the colored woman referred to there was no assignable cause for the ascites except the presence of a sub-serous uterine foetus myomata. At the operation he removed the uterine appendages. The growth remained, but there was no return of the ascites. There was also a complete procidentia, but after the operation he was enabled to keep the uterus in place with a soft rubber ring.

The tumor gradually diminished and ultimately disappeared.

Is the exposure and irritation of the serous membrane during the operation a sufficient explanation of such an alteration in its function when the apparent cause of the ascites extension remains? He thought the question eminently important and practical in its bearings, and that it required further elucidation.

DR. WILMER BRINTON remarked that in a case of corrhasia of the liver in a male patient, tapping for the ascites had been followed by a permanent opening which persisted until the patient's death, one month afterward.

DR. J. WHITRIDGE WILLIAMS, in referring to Dr. Moseby's remarks, said that the ascites accompanying papillomatous growths was considered to be due, in great part, to direct exudation from the vessels of the growth. He also referred to tubercular peritonitis.

DR. B. B. BROWNE exhibited a small tumor about the size of a large hickory-nut, and apparently a fibroid which he had removed from a point a little to one side of the median line, and between the clitoris

and urethra. It pressed on the urethra interfering with micturition. The growth was easily shelled out, and the patient did perfectly well. It was the first growth of the sort he had seen in that locality.

DR. NEALE related a case of imperforate rectum in a white male child naturally born, at full term, of healthy parents. The child was puny, weighing only $5\frac{3}{4}$ pounds at birth, and 1 inch within the anus the rectum was imperforate. Dr. T. Harvey operated upon the child when it was two and a half days old, very feeble and partly cyanosed. No anæsthetic was used; the anus was cut through; the cinneal structures laid open; the coccyx removed; the rectum opened through its posterior wall, just above the imperforate part, and its mucous membrane stitched to the skin just behind the original aperture. The stitches sloughed out, and the large wound healed slowly by granulation. A copious discharge of flatus and meconium occurred during the operation, and the tympanitic abdomen disappeared.

Profound shock and collapse followed the operation; the child lying motionless, the feet and lower limbs cyanosed, the face and head less so, jaw dropped, mouth opened, eyes closed, lids blue, surface temperature but little, if at all, lowered. No cry. The features were frequently pinched, or wrinkled, from pain, becoming more or less blue at irregular intervals.

In this condition the child would make no effort at suction, but would swallow two teaspoonfuls at a time of milk and brandy when poured into its mouth, rarely refusing to swallow, and never vomiting the food and stimulus which were given freely and frequently.

For nearly two days and a half did it remain in this state, partially rousing during the administration of food or other disturbance and again relapsing. Even after this period, when the first decided improvement occurred, the child would frequently relapse and remain in this condition for hours at a time. The first two weeks of its life was passed in this manner. The digestive and urinary apparatus functioned normally.

From the tenth to the fourteenth day these attacks gradually diminished and ultimately disappeared.

The child is now nearly two months old, but very feeble, and weighs only $5\frac{1}{4}$ pounds. It has been reared chiefly on condensed milk. The dense cicatrix just about the seat of the old imperforation has to be dilated daily with the finger; another operation will be necessary. No diagnosis of abnormality in vascular system could be made.

DR. BRINTON mentioned a case of a child which lived nine or ten days with an open ductus arteriosus.

DR. MILTENBERGER said that in Dr. Neale's case the sphincter and anus were perfect. On introducing his finger to the end of the cul de sac he felt what appeared to him the end of the gut bone.

He thought that no ordinary trouble could account for the symptoms in the case. The cyanosis would not clear up entirely and then recur. He did not consider the condition one of collapse. There was no feebleness of pulse, or coldness of surface. The child would lie in an apparently comatose condition, with no evidence of sensation, and then recover. The first attack followed immediately the operation, and evidently from shock; but after two or three days it could not be attributed to this cause. There was no chill or febrile condition.

After the child had commenced taking food he used quinine by inunction, and also small doses of dyolized iron, and, as he believes, with benefit from the latter.

He was inclined to account for the condition in this way: A very feeble child had food forced upon

it for eight or ten hours, and when it had taken in all it could, it apparently fell into a condition similar to that of bevnoting animals, and when the supply of food was exhausted it would recover and take more nourishment. This condition entirely disappeared after the first two weeks.

W. S. GARDNER, M.D.,
Secretary.

712 N. HOWARD STREET.

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

Stated Meeting held Thursday May 14, 1891.

THE 726th meeting of the Society was called to order by the President DR. DAVID STREETT. Minutes of previous meeting read and approved. DR. W. S. GILROY was elected to membership. DR. HARRY FRIEDENWALD read a paper entitled

PECULIAR VISUAL DISTURBANCES CAUSED BY WEARING GLASSES. (BINOCULAR METAMORPHOSIA.)

DR. GEO. THOMAS read a paper entitled

ATROPHIC RHINITIS,

and exhibited an improved spray tip, for cleansing the post nasal chambers through the anterior nares.

DR. HARRY FRIEDENWALD said he thought the little instrument was good, not only in the disease spoken of, but in any inflammatory trouble of the nasal fossæ, by preventing the extension of the disease to the post-nasal orifices and thus to the middle ear. He was glad to hear Dr. Thomas denounce the douche, as it is a fruitful source of middle ear trouble. He thought all forms of washing the nose, by passing a stream of water through the nose as dangerous as the douche.

DR. J. W. CHAMBERS related several cases of

TRAUMATIC INJURIES TO THE BRAIN.

CASE I. Boy struck over head with a pitcher, brought into hospital in collapse, severe scalp wound, no cranial fracture could be made out. Rallied after about twenty-four hours. Walked about, talked rationally, ate well, and no pain. In a few days he developed severe pain at seat of injury, and high temperature. An operation was done twelve days after being brought in the hospital. A half inch button was trephined, the dura mater was opened, an aseptic needle was passed about a dozen times, as a probe, in all directions into the brain and into the ventricles. About 3iiss of cerebro-spinal fluid was drawn off, but no pus was discovered. The wound was dressed antiseptically, and the patient made a rapid and excellent recovery.

II. Male, aged forty-eight, railroad conductor, fell from a train, and brought into hospital in an unconscious condition. There was a scalp wound, but no fracture could be made out. Pupils were contracted and a small amount of blood in the left ear. Diagnosed as a case of concussion and laceration of the brain. He was brought into the hospital at 9 A. M. and died at 9 P. M. The post-mortem showed laceration and hemorrhage into the brain, but no fracture of skull.

III. Male, aged twenty-two, fell from the fourth floor down an elevator shaft; was brought into hospital shortly after accident, in a semi-unconscious state; there was a fracture of the skull, the right ear was nearly torn off the head; nose was bleeding, had a large contusion over the left eye; there was no sub-conjunctival hemorrhage, pupils contracted, pulse 52,

sub-normal temperature, he was restless and irritable, in two hours after being admitted he was totally unconscious. The temperature began to rise and respirations increased in frequency until he died. One hour before death the temperature taken in the rectum was 107° F. One hour after death the temperature taken in the same way was 106° F. The post-mortem showed a linear fracture of the skull through the temporal bone, with extensive hemorrhage in the brain. In the first case there was shock for the first twenty-four hours, then the patient rallied and did not develop any serious symptoms for several days. Then there was pain at the seat of injury, and high temperature. No fracture was made out in this case at all. There was prompt cessation of the symptoms after the operation. If we can draw any conclusions from one case, we may say that opening into and exploring the brain is not so serious a matter as it was supposed to be some few years ago.

In the second case the patient had all the symptoms of fracture of the base of the skull, but there was not a fracture. In the third case, loss of consciousness was not due to the injury to the brain received in the fall, but was due to the pressure exerted by the hemorrhage, as he did not become totally unconscious until two hours after coming into the hospital. Brain surgery does not differ so materially from surgery as applied to other parts of the body. There is no good reason why the brain should not have the application of a principle in surgery that is known to be good when applied to other parts of the body.

DR. WM. H. NORRIS said there had been great advances in surgery in the last twenty years. Previous to the civil war, it was taught and practised that to open into the brain meant death. It was shown during the war that brain injuries could be treated as well as injuries to other parts of the body.

In the first case of Dr. Chambers' he had opened into the brain and found nothing. If the good effect of the operation was from the relief of tension by drawing off the *ziss* of cerebro-spinal fluid, why could not the same effects have been had by venesection or by the use of saline cathartics?

DR. HARRY FRIEDENWALD said the first case of Dr. Chambers' was of special interest to him. He had examined the boy ophthalmoscopically and found his eyes perfectly normal. He had done a similar operation and the patient had died, but the post-mortem showed that he died from thrombosis of the lateral sinus and not from puncture into the brain.

DR. CHAMBERS said, in answer to Dr. Norris, that the boy had been treated with an ice cap and cathartics. He was known to have had an injury on the head. He had high temperature and his condition, taken in connection with his history, made it morally certain that he had an abscess of the brain and he thought it proper to give him the benefit of an operation.—J. WM. FUNCK, M.D., *Rec. and Rep't Sect'y*.

1710 W. FAYETTE STREET.

EPILEPSY.—The most satisfactory results are obtained by combining the bromides with some vegetable agent of producing cerebral anæmia. The combination also tends to produce tolerance. Among the best agents are the calabar bean, belladonna and cocculus indicus or their active principles, combining the bromides tends to prevent bromism, while it increases their physiological action; and while the potassium salt produces diarrhoea the sodium constipates. A very good formula, increasing the salts as required, is:

R.—Brom. of ammonium..... gr. v.
Brom. of sodium..... gr. v.
Brom. of potass..... gr. x.
Tinct. belladonna..... gtt. x.
Aromat. elix..... ℥ij.
Pure water..... ℥j.

M.—Sig. Three times a day.

—*Kansas Med. Jour.*

REMOTE EFFECTS OF SUNSTROKE.—Of the cases of which I have record, many were soldiers and had sunstroke in the South during the rebellion. They were nearly all drawing pensions on sunstroke, thus furnishing proof that they had the disease. These patients nearly all stated that they were unconscious at the beginning of the attack, and they all attributed their condition to sunstroke. The pulse in most of them was more frequent than normal, running as high as 120. The slowest pulse found was 50. Respirations from 18 to 32, but were nearly always more frequent than normal. These patients were nearly all anæmic and poorly nourished, and many of them had indigestion.

As the symptoms refer to the nervous system in most of these cases, we will endeavor to tabulate the abnormal conditions pointing to a diseased nervous system, then to disease of the heart, respiratory system, etc. The majority of them complained of headache and vertigo. But perhaps the most frequent condition found was tenderness of the spine. Many of them had tenderness the entire length of the spine, while others only had tenderness at one or more points, the most frequent of which was in the cervical region. In connection with tenderness of the spine was exaggerated reflexes.

The patellar tendon reflex excitability was exaggerated on both sides in eighteen cases, and on one side in two. The knee-jerk was diminished on both sides in two, and on one side in two; ankle clonus was present on both sides in ten and on one side in four. Four of these patients had epilepsy as a result of sunstroke; two had partial hemiplegia; nine had cutaneous anæsthesia, extending over entire right side of body in four, and over the left side in two; and one had diminished sensation over the entire body; on the left leg the compass points could only be distinguished as two when placed on opposite sides of the leg; and on the right side only when one foot apart. Hyperæsthesia existed in three cases, and all on the left side of the body.

The mental faculties were very much impaired in three, and loss of memory existed to some extent perhaps in the majority of them. Very marked muscular tremor existed in one; twenty of them were practically deaf in both ears, five in one ear, and complete deafness of one ear existed in two, and in both of these the nerve was destroyed.

Twenty-six of these patients had impaired vision in both eyes, and two had impaired vision in one eye. Total blindness existed in one eye, in which there was cataract. Sighing respiration was not an unfrequent symptom, and probably resulted from impairment of the nerve centers. In fourteen cases the heart was very irritable, and in fifteen a heart murmur could be heard. The most frequent site of the murmur was at the apex; occasionally it could be heard at the left side and back. Many of these murmurs were doubtless anæmic, but some of them were organic. Only one heart was found to be very much enlarged. The action of the heart was occasionally found to be irregular or intermittent.

—Barlow, *Lancet-Clinic*.

The Times and Register

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New York and Philadelphia, June 20, 1891.

LOUIS PASTEUR AND HIS CONTRIBUTIONS TO MEDICINE.

WE would not presume to undervalue Pasteur's contributions to science. These contributions have been manifold and great. His studies on the fermentations have resulted in most valuable acquisitions to scientific knowledge, and have given an immense impetus to modern microbic investigations and the extension of the germ theory of disease. Joseph Lister has affirmed that he got the inspiration for his doctrines of antiseptics in their application to surgery from Louis Pasteur. The substance of Pasteur's discoveries in this line is that all fermentative and putrefactive changes come from living germs (foreign bodies) which obtain access to the part; that there is no such thing as spontaneous generation; that if you can exclude all germs or foreign living organisms, you will exclude all fermentative or putrefactive decomposition. To these data, subsequent investigators, chief among which is Joseph Lister, have added that fermentative or putrefactive, *i. e.*, *septic* changes taking place in the human or animal organism are equally dependent on the introduction of living germs from without, and that by rigid asepsis and antiseptics all septic diseases may be prevented. Surgical wounds have been, in consequence, treated antiseptically. The same data that were found to have such a wonderful practical bearing on surgery were applied to obstetrics with the most satisfactory results. The next generalization was that all infectious diseases are *septic* diseases and equally amenable to treatment, properly called germicide or microbicide. The first part of this proposition is being confirmed every day by experiment and observation; in fact, the infectious agents of at least twelve of these diseases are now known. With regard to the second part of the proposition, the statement may be said to have been verified again and again as far as

the prophylaxis of communicable diseases is concerned, for by dint of excluding the germs we can exclude contagion. It cannot, however, be yet said that the treatment of disease *that has once declared itself* has as yet much profited by antiseptic medication. Possibly we are better able to combat diphtheria now that we know that the Loëfller-Klebs microbe is its cause, and that diphtheria is a primarily local malady.

Pasteur has derived much renown from his researches on the silk-worm disease, for which he has been awarded handsome gratuities by the French government. This subject does not much interest physicians in this country, and it suffices to say that considered from one point of view, Pasteur seems to have mastered the silk-worm disease and its causes, and his discoveries ought to have long ago restored the sericulture of France to its former prosperity. Such has not, however, been the case, as the following statistics will show. In the year 1850, when the silk-worm disease first appeared, France produced annually 30,000,000 kilogrammes of cocoons. In 1866-67, the production had fallen to 15,000,000 kilogrammes, "since then," says Masquard, "under the influence of Pasteur's preventive remedy, the production has declined to 8,000,000 kilogrammes in 1873." According to Combe, an unimpeachable authority, the "harvests" (*récoltes*) have continually diminished, and for the past few years have given but 1 to 2,000,000 kilogrammes of cocoons.

Of course, there may be other causes for the decline in silk production:

1. The Pasteur system may not have been carried out in all its rigorousness.
2. Other agencies may have been at work besides "*pébrine*" and "*flacherie*" to discourage and check sericulture.

PASTEUR'S ATTENUATED INOCULATIONS.

Whatever credit may be due to the discovery of attenuated virus, and the obtention of immunity from contagious diseases by inoculations with such virus, belongs, after Jenner, to Louis Pasteur. It may be that the practical outcome of this discovery (at least in its application to diseases, other than small-pox), has not been great, nevertheless attenuated vaccine must be looked upon as one of the most wonderful medical discoveries of the century.

Pasteur obtained the hint which led him to undertake his memorable researches on the attenuation of virus from Jenner. He said to himself, "If contagious diseases do not repeat themselves, why should there not be found for each of them a disease different from them, but having some likeness to them, which, acting upon them as cow-pox does upon small-pox, would have the virtue of a prophylactic?"

Pasteur first tested this principle in the prophylaxis of fowl cholera. The matter is so well stated by Radot that I shall borrow from his description of Pasteur's method. In causing the microbe of fowl cholera to pass from culture to culture in an artificial medium, a sufficient number of times to render it impossible that the least trace of virulent matter from which it originally started should still exist in the

last cultivation. Pasteur gave in an absolute manner proof that infectious diseases are the sole authors of the diseases which correspond to them. This culture may be repeated ten, twenty, a hundred, even a thousand times. In the last culture the virulence is not extinguished, or even sensibly weakened, but it is a fact worthy of attention that the preservation of the virulence in successive cultures is assured only when no great interval has been allowed to elapse between the cultures. For example, the second culture must be sown twenty-four hours after the first; the third, twenty-four hours after the second, etc. If a culture is not passed on to the following one until after an interval of several days or several weeks, a great change may then be observed in the virulence. This change, which generally varies with the duration of the interval, shows itself by the weakening of the power of the contagion.

If the successive culture of fowl cholera, made at short intervals, have such virulence that ten or twenty inoculated birds perish in the space of twenty-four or forty-eight hours, a culture which has remained, say, for three months in a flask, the mouth of which has been protected from the introduction of all foreign germs by a stopper of cotton-wool, which allows nothing but pure air to pass through—this culture, if used to inoculate twenty fowls, though it may render them more or less ill, does not cause death in any of them. After some days of fever, they recover their appetite and spirits. If afterwards they are reinoculated with a very virulent virus, they prove themselves refractory to that virus.¹

Pasteur affirms the attenuating agent to be the oxygen of the air, and seems to have proved this by unimpeachable experiments.

Unfortunately, these inoculations, no matter how carefully performed, have failed to arrest fowl cholera in any part of France, and, according to Paul Combes, they have remained either useless or injurious.² It is none the less true, however, that the efficacy of the preventive inoculations has been proved in a sufficient number of instances, and that the *principle* of attenuated virus is sound.

The same may be said respecting the immunity against swine-plague conferred by protective vaccinations. Swine-plague is due to a microbe first discovered by Detmers, and subsequently identified by Pasteur and Thuellier; this microbe, according to Detmers, is a micrococcus, sometimes single, sometimes grouped in chains. Pasteur obtained the attenuation of the virus of this micrococcus by inoculating it from rabbit to rabbit; the virulence goes on diminishing, and when, after several successive generations, the virus is reinoculated in the hog, it produces a much milder disease which is seldom or never fatal, and which renders the animal proof against the deadly swine fever. At least, under fairly good tests, such immunity seems to have been demonstrated. It does not, however, appear that this discovery has ever been turned to any very important practical account, and a Commission appointed by the Society of Agri-

culture of Vacluse, in 1885, to report on the efficacy of this vaccine, and after a fair trial, under seemingly favorable circumstances, reported no result. They intimate that the vaccine furnished them by M. Pasteur was probably spoilt by exposure to the air, or from some other cause.

With regard to the vaccine of splenic fever (charbon), there are two aspects to be considered; the one, the triumph of the method; the other, its failures and its decadence. From a careful reading of both sides I am convince that in the discovery of the conditions of culture of the anthracoid virus, the conditions of sporulation, the mode of attenuation, and in the triumphant demonstration of the efficacy of the protective vaccinations at Pouilly-le-Fort in 1881, Pasteur has earned the respect, admiration and gratitude of the whole world. At the same time, despite the brilliant successes which have been attributed to these vaccinations, they have gone out of vogue, and are not practised to-day, the majority of veterinary surgeons having recognized their inefficacy. The following facts borrowed from *Lutaud* will seem startling to those who have read only one side of this question:

On a farm in the suburbs of Laon, the proprietors caused to be vaccinated three times, with a fortnight of interval, a flock of sheep affected with charbon, but the disease went on unchecked.

On a neighboring farm, the veterinary vaccinated the horses *which were not sick*, and three perished from the operation; M. Magnier, the proprietor, demanded reimbursement for the price of the horses, and obtained it.

In the suburbs of Meaux, a veterinary physician having killed four cows with the famous vaccine, M. Pasteur paid the price of the cows to stop a law suit.

In 1882, M. Franchamp, a farmer of Châteauneuf, lost in consequence of the anthracoid vaccinations, horses, cattle and sheep to the value of five thousand francs.

In 1882, M. Fournier, a veterinary of Augerville (Loiret), vaccinated a flock of four hundred sheep; a few days after the application of the first vaccine ninety sheep succumbed to splenic fever.

In 1884, Henri Thirouin, Mayor of St. Germain-le-Gaillard, and Marcel Lebrun, a farmer in the same commune, had their sheep vaccinated by Pasteur's method; a considerable part of their flocks died as the result of the vaccination.

A similar fatality occurred in 1888 in a Russian commune from the Pasteurian vaccinations, as reported in the *Semaine Medicale* of that year; the proprietors of several large estates caused their cattle, sheep and horses to be vaccinated to protect them against an epidemic which was raging in the surrounding country, and lost a large part of their flocks from the inoculated disease.

The Sanitary Commission of the Hungarian Government in 1881 thus terminated its report on the inoculation of cattle according to Pasteur's method:

"The most grave diseases, pneumonia, catarrhal fevers, etc., have smitten exclusively the animals subjected to vaccination. It follows from this that the Pasteurian inoculation tends to accelerate the action of certain latent diseases, and to hasten the mortal issue of other grave affections."

The Hungarian government then and thereafter prohibited these inoculations.

"But the best demonstration of the usefulness of the anthracoid vaccinations," says *Lutaud*, from whom we have borrowed the most of the above facts, "is that they have ceased to be practised at the present day, the greater part of the veterinary physicians having recognized their inefficacy."

From the above record of failures (which are by no means all) are we to conclude that the method of attenuated vaccina-

¹ "Life of Louis Pasteur," by his son-in-law.

² Paul Combes, "The Twelve Labors of Pasteur."

tions, as far as anthrax is concerned, is a delusion and a humbug? We do not think that such a conclusion would be either just or scientific.

The method has been a success in too many well-attested instances, and no amount of subsequent failures can nullify those facts. I do not know that science is yet in possession of the data whereby the failures may be explained. Certainly the *quality* of the vaccine cannot in all the instances have been of a uniform character, and it would seem that despite the necessary attention to the conditions, the bacilli *do not always attenuate*.

PASTEUR'S ANTI-RABIC INOCULATIONS.

It was on his anti-rabic vaccinations that Pasteur hoped to win his greatest trophies in the cause of afflicted humanity. Thus far in the history of mankind no cure for hydrophobia has ever been found, nor prior to Pasteur's discovery has any prophylactic for persons bitten by rabid animals been known, cauterization only being excepted.

Before criticizing Pasteur's treatment, a word or two about the frequency of death by hydrophobia before and since the introduction of Pasteur's method will be appropriate. These statistics pertain principally to France, where the protective vaccinations are best known. It is noteworthy that in the East, where dogs are plenty and under no surveillance, rabies is almost unknown.¹

According to Heisch, the number of deaths from hydrophobia in Austria each year, from 1879 to 1885, was as follows: 13, 8, 5, 7, 2, and 10. In Prussia, the figures for five years of the same period (ending in 1885) were as follows: 10, 6, 4, 1, and 0. The only prophylactic treatment consists in muzzling the dogs.

In France, according to Brouardel's statistics, from 1850 to 1872 the average number of cases of deaths per year was 27. In 1851 there were 12; in 1857, 13; in 1860, 14; in 1870, 6; in 1871, 14; in 1872, 15; 17 died without treatment in 1886, and 22 with treatment. From November 1, 1886, to November 1, 1887, 27 died under treatment; 23 in the year ending November 1, 1889, and 21 in 1889, a reduction from the former average of about 5 per annum. But the mortality in several years prior to this had been much less than this, as in 1870, 1871, and 1872, so that the mortality statistics in no sense tell in favor of Pasteur's preventive method.

The argument, in short, shapes itself thus: if the mortality by hydrophobia is not lessened by the Pasteurian vaccinations, of what utility are these vaccinations?

This argument has been presented substantially in this shape by all the opponents of Pasteur, but it may be partly met by the reply that doubtless more cases of canine rabies have come to light, and a greater attention has been given to the subject since the promulgation, all over Europe, of a reasonably certain means of prophylaxis for the bitten. Again, persons from all parts of Europe, bitten by rabid animals, have flocked to the Pasteur Institute for treat-

ment. The argument is not a valid one, unless it can be shown that for the past six years *only the usual number of persons have been bitten*, so that, the mortality under Pasteurism not having been lessened, we may infer that the vaccinations (as Pasteur calls them) are inert. Now the records of the Pasteur Institute show a large increase of late years in the number bitten by rabid animals, for reasons hinted at above.

The real argument would be this: The mortality among the bitten is just as great under Pasteurism as it is where the preventive vaccinations are not practised. Now this proposition will not stand a minute. According to all reliable statistics, there has been a diminution in the mortality of those vaccinated of from 16 per cent. to about 1 per cent. In other words, without the prophylactic vaccinations, 16 per cent. die; of those who undergo the Pasteurian treatment, only 1 per cent. die.

We have carefully examined the official records, and are persuaded that this conclusion is fully justified. As careful an observer as Dujardin Beaumetz, member of the Council of Hygiene and Salubrity of the Seine, who is obliged yearly to report all deaths from hydrophobia occurring under his jurisdiction, affirms a reduction in the mortality of those bitten, and subsequently vaccinated, to about 1.5 per cent.

It is from consideration of facts of this kind that the great majority of medical men in France still have faith in the protective power of the Pasteurean vaccinations. That a person vaccinated only now and then dies of hydrophobia, obviously no more disproves the utility of the vaccinations than the occasional failure of the antisiphilitic treatment proves iodide of potassium and mercury to be of no value in syphilis.

Lutaud devotes a whole chapter to the detail of Von Frisch's control experiments, which he thinks disprove Pasteur's claims. We cannot regard them as conclusive, and are persuaded that there was some flaw in Von Frisch's methods and manipulations. Certainly no amount of negative facts can nullify the positive results which Pasteur has obtained repeatedly.

Pasteur takes a number of animals and inoculates them all with the most deadly virus, applying this to the brain by the operation of trephining; he immediately begins on half these animals the treatment of protective vaccinations, going rapidly from the least intense to the most intense virus; the "protected" animals all live, those not vaccinated all die. In other instances, Pasteur applies the protective vaccinations first, afterwards inoculates the animals with the deadly virus, and obtains the same results. It is because such facts have been witnessed again and again in rabbits and dogs that eminent men of science, like Vulpian, Grancher, Tyndall, believe in the protective power of these vaccinations when applied to man; but to be truly prophylactic the sooner they are resorted to after the person is bitten, and before the nervous centers have been invaded, the better.

Lutaud, who studiously keeps out of sight all facts that speak in favor of Pasteurism, censures Vulpian

¹ Lutaud.

for being the first to promulgate and advise the anti-rabic inoculations; but it must be remembered that Vulpian was eminent as a physiologist and a pathologist, and that few better scientific experimenters have lived in our day. Surely such a man might be deemed especially well qualified to judge concerning the value of those vaccinations.

It must be remembered, too, that the institute is still doing a large work, the number of those bitten and vaccinated undergoes little if any diminution, and the "engouement" (as Lutaud calls it) for Pasteurism does not much decrease.

In concluding, we must again call attention to the fact that whatever view may be taken of this last phase of Pasteur's labors, his name must ever be honored as that of one of the greatest benefactors of our age.

Whoever attempts to trace the history of the microbic origin of infectious diseases, of a sepsis and antiseptics in surgery and obstetrics, and in the prophylaxis and treatment of infectious diseases, is inevitably led back to Pasteur's studies on fermentations and on spontaneous generation, *si mammalium quæris adspicere*. The physicians of to-day have reason to be deeply grateful to Louis Pasteur, and we believe that the great bulk of the profession are suitably grateful.

E. P. H.

Annotations.

AN IOWA QUACK.

FEARING lest a benefactor to his race should be compelled by his native modesty to blush unseen, and waste his sweetness on the desert air, we give space in our columns to a remarkable instance of his diagnostic skill. From Dr. J. G. Pace, of Nebraska we received the following edifying document, which is printed verbatim et literatim:

—26TH—
PROCLAMATION
—OF—

DR. O. G. W. ADAMS TO THE PEOPLE OF THE WORLD.

COLFAX, IOWA, JANUARY, 1890.

TO MY PATRONS:

The past year having been to me an exceedingly prosperous and successful one, I desire to tender to you my sincere thanks, with the hearty wish that during the New Year we all may enjoy all of Earth's richest blessings. For the past year I have manufactured all my medicines in lozenge form, dispensing with alcoholic menstruum, and find that their medicinal virtues are in no wise impaired, thus preventing the formation of a habit for alcoholic stimulants and avoiding the pernicious results therefrom. All medicines are manufactured at my Laboratory under the supervision of a careful and practical chemist, who, after much study and many laborious experiments, perfected my medicine in lozenge form—making my remedies the only true temperance medicine EXTANT. In conclusion, allow me to say, give me and my medicine a fair trial, follow my directions and I will build up your debilitated constitutions, renew the vigor of life, and restore you to health again. I have treated during the past year 36,791 people, and established a business unequalled by any other medical man in the United States.

PSYCHOLOGIC SPECIALIST.

This science is fully understood by me. I will give a clairvoyant diagnosis either by lock of hair or presence of person, telling you how you are, better than you can yourself.

In the progress of civilization, old ideas, in almost every department of life, give place to those which are new, or essentially modified by them. Foremost among the interests which pertain to society, is health. With health, what can we not endure?—what can we not enjoy? Without it, trifles become burdens and the joys of life are turned into mourning.

VITAPATHIC SYSTEM, OR LIFE-PRINCIPAL.

The extraordinary cures which this system has affected, very naturally attract toward us the profound attention of the public. Medical men, clergymen, philanthropists, all see that we are performing a most valuable service. Under this system we give chyle and lymph of Roots, Herbs and Barks, acting in harmony with the great laws of Nature, gradually and kindly removing the hidden cause of disease. Nature's operations are almost invariably of the gentlest kind, all healthful ones certainly are. The gentle rain and the gentle dews teach us a lesson on this point. The wonderful power of medicine under the Vitapathic system cannot be too strongly urged.

To purify the blood is one of the cardinal principles of the Vitapathic system, which embraces a combination of various medical sciences and experiences—taking what is good from others and rejecting the rest. All medicine given in lozenge form.

CONSULTATION FREE.

References from every State in the Union. All medicines made at our pharmacy. All letters must be accompanied by five 2-cent stamps.

O. G. W. ADAMS, M. D. Colfax, Iowa.

Our correspondent was so affected by this wonderful lucubration, that he immediately forwarded the doctor a lock of hair from his Gordon setter. In reply he received the following, which very fairly represents the diagnostic acumen of this worthy and reverend practitioner of the divine art of medicine.

OFFICE OF

O. G. W. ADAMS' SANITARIUM.

COLFAX, IOWA.

Thine at hand and contents noted. I find thee has nerve Blood and Seminal weakness and Rheumatism of the Blood Kidneys Liver Spine Stomach Heart lungs and fluids of body all affected and Neuralgia of the Blood thee can be Cured

It will cost thee 5 Dollars for two months medicine.

Registered Letters, Money Orders or Express Orders at my risk. All medicine sent by Express

Write the Town, County, State and nearest Express office plainly to avoid mistakes. In ordering medicine return this diagnosis. No medicine sent unless money accompanies the order.

References from every State in the Union. All medicine made at our pharmacy. All letters must be accompanied by five 2-cent stamps.

O. G. W. ADAMS, M. D.

The dog is being watched with extreme solicitude, but bears his numerous inflictions with equanimity. This man Adams is registered in Polk's Directory as an Eclectic; but his name is followed by a star, showing that no record of his graduation was furnished.

EXAMINATION OF DIXON'S TOXIC SOLUTION EXTRACTED FROM A TUBERCULAR LUNG OF A COW.

UPON the addition of alcohol a white flocculent precipitate is formed, which while moist is readily soluble in water, but after drying is very difficultly and almost insoluble in water. This substance appears to be the active principle of the extract. It belongs to the class of albumoses. Under the microscope no crystalline structure can be noted.

A solution of this albumose corresponding to three c. c. of the original extract, was injected into a guinea-pig which some weeks before had been inoculated with tuberculous material, but at the time of the injection showed no signs of disease. The injection was made on the inner side of the thigh.

April 17, 1891.

Temperature of guinea-pig before inoculation at	10.15 A. M.	102° F.
" " " after "	10.45 "	101.2° F.
" " " " "	12.00 M.	95.8° F.
" " " " "	1.30 P. M.	94.0° F.
" " " " "	2.30 "	95.6° F.
" " " " "	3.30 "	97.5° F.
" " " " "	4.00 "	98.6° F.
" " " " "	7.45 "	101.5° F.

April 18, 1891.

Temperature of guinea-pig after inoculation at 9.45 A. M.—	103° F.
" " " " " " " " " " " "	11.00 " " 102.4° F.
" " " " " " " " " " " "	12.00 M. 102.4° F.
" " " " " " " " " " " "	1.00 P. M. 103.2° F.
" " " " " " " " " " " "	1.30 " 103.4° F.
" " " " " " " " " " " "	2.45 " 103.3° F.

April 21, 1891.

Temperature of guinea-pig after inoculation at 10.30 A. M.—102.8° F.

April 22, 1891.

Temperature of guinea-pig after inoculation at 10.30 A. M.—102.6° F.

April 24, 1891

this same pig was reinoculated with the same amount of substance in the opposite thigh.

Temperature of guinea-pig before inoculation at 10.45 A. M.—	103° F.
" " " " " " " " " " " "	11.15 " 103.4° F.
" " " " " " " " " " " "	12.00 M. 102.7° F.
" " " " " " " " " " " "	1.00 P. M. 103.3° F.

April 25, 1891.

Temperature of guinea-pig after inoculation at 4 P. M.—102.2° F.

April 26, 1891.

Temperature of guinea-pig after inoculation at 3 P. M.—101.8° F.

Two days after the inoculation ulceration occurred at both points of injection. To compare this with the effect upon a guinea-pig known to be healthy, the active principle from the same quantity of substance was injected as in the first animal.

April 22, 1891.

Temperature of guinea-pig before inoculation at 10.45 A. M.—	102.8° F.
" " " " " " " " " " " "	11.00 " 101.8° F.
" " " " " " " " " " " "	11.25 " 101.4° F.
" " " " " " " " " " " "	1.00 P. M. 101.6° F.
" " " " " " " " " " " "	2.30 " 101.6° F.
" " " " " " " " " " " "	3.30 " 102.6° F.

April 23, 1891.

Temperature of guinea-pig after inoculation at 11.00 A. M.—102.6° F.

No soreness or ulceration were noted at the point of injection in this last pig.

This examination was made by E. A. de Schweinitz, M.D., United States Department of Agriculture, Bureau of Animal Industry.

DR. L. W. WHITNEY, of Chicago, has been arrested on a serious charge. A man is said to have called at his office with a wound of the forehead. After sewing up the wound, Dr. Whitney asked for his fee, which was not forthcoming; whereupon the doctor is said to have cut the stitches, and re-opened the wound. Should this report be true, the doctor will doubtless receive the legal penalty for his inhumanity. But does not this case speak volumes of the straits to which the medical profession is reduced, when such things are possible? All sorts and conditions of men are free to call on the doctor for his services, and common humanity requires him to use his best endeavors to relieve his suffering fellow-citizens. But neither the common law or the common human humanity secures to the doctor his due recompense. The patient may simply ignore his obligations, and not in one case out of twenty does the law afford an available remedy. If the butcher had cut off Dr. Whitney's supplies, and the bailiff had seized his household goods for rent, there would be some excuse for desperate methods on his part to secure his lawful fees. And if this were not the case with him, it is so with other physicians who are struggling to be honest, and at the same time merciful. In other countries these things are remedied, and could be easily made right here, by legislation similar to that enforced in Germany.

The Medical Digest.

PRACTICAL POINTS FROM THE MEDICAL WORLD.

N. B. SHADE treats tuberculosis by giving calomel in small doses.

E. M. LITTLEJOHN denies the influence of frost in causing the death of those who are ill with yellow fever.

A. C. MACHETTE states that in his cases of influenza he has noted a remarkable manifestation of sexual desire.

J. O. SPOHN recommends santonine as the best remedy for anuresis. Its use should be continued for months, if necessary.

G. G. KEMPER recommends the frequent application of a saturated solution of ammonium chloride for rhus poisoning. It is probable that few persons make such lotions as strong as they should, to get the best effects.

W. D. COLLINS reports two cases of idiosyncrasy to quinine, which are rather instances of the misuse of this drug. People seem to forget that this powerful agent is not harmless. It is, in fact, a protoplasmic poison, and cannot be given ad libitum.

D. TUREAUD recommends for rigidity of the os uteri, the administration of dosimetric granules of strychnine and of hyoscyamine, one each every ten to fifteen minutes for four or five doses. Then stop the hyoscyamine and continue the strychnine if a little more bracing is needed.

LOCAL ANÆSTHESIA.—Richardson recommends for local anæsthesia a mixture of 1 part carbolic acid to 100 parts anhydrous ether; employed by atomizing.

ANAL FISSURES.—Duplay says that for tolerant fissures medicinal treatment suffices—as sitz baths, lotions, pomades, and laxatives. For the intolerant form, dilatation of the sphincter is requisite. If this fails, the sphincter should be divided by the thermocautery.

OZONIZED AIR.—D'Arsonval has studied the effects of inhalations of ozonized air, recommended recently as a therapeutic agent. It has been claimed that these inhalations increased the proportion of hemoglobine in the blood; but after very careful and precise measurements, D'Arsonval finds that there is an actual diminution of respiratory capacity. This he believes to be due to the nitrous vapors always produced when atmospheric air is ozonized. His conclusion is that these inhalations are injurious and should not be prescribed.—*Revue de Thér.*

W. L. GILBERT describes two cases in which pregnant women followed the rules of a quack book, entitled "Child-birth Made Easy." The rules consisted of rigid dieting, etc. The result was almost painless and very speedy labor. The children were literally starving. One died in a few hours; the other was with difficulty kept alive, and one year after birth weighed just seven ounces more than when born. The mothers were reduced to such a degree that months of careful treatment were necessitated to restore them to health. The child that lived had cleft palate, double inguinal and umbilical hernia. The only person really benefited by the experiment was the husband, who was cured of nervous prostration by the diet and regimen instituted by his wife!

Medical News and Miscellany.

A PITTSBURG priest is drawing thousands of invalids by reports of miraculous cures.

FOUR fatal cases of yellow fever at Lyons are thought to have been contracted from a pair of parrots, brought from Marseilles. The parrots also died.

FROZEN game partakes and absorbs whatever impurities the ice may contain, and everybody knows that the best quality of ice is never used for packing.

THE Rector Magnificus of the University of Budapesth, Prof. Schulek, has given 2,000 florins towards the establishment of a hospital where poor students might be properly cared for in sickness.

DRS. H. C. CHAPMAN, D. Hayes Agnew and Wm. Pepper are the Philadelphia members of the committee to receive subscriptions toward the testimonial to be presented to Virchow on his seventieth birthday.

THE mortality in one of our city hospitals among the resident physicians is very great. During the past year no less than three have been compelled to resign. The cause is said to be nurseitis.

THE North British and Mercantile Insurance Company, that commenced granting life insurance without a medical examination, has abandoned the plan. During the time it was in operation, it cost the company at the rate of \$100,000 per annum.

IN the *Alabama Medical and Surgical Age* Dr. W. M. Cunningham reports the case of a mulatto delivered of a monstrosity. A cut is given, that shows the resemblance to a dog to be so strong as to render the explanation given inadequate. This is, that while the woman was "breeding," she was frightened by an opossum.

ALL incandescent electric lights should be shaded for desk workers. Since they have been generally introduced, it has been found that where the rays fall direct upon the eyes of newspaper writers and desk workers, there has been a great increase of complaints of dimness of sight and inflammatory affections of the eyes.

IN Toronto the newly appointed medical officer is stirring up the dry bones of the authorities and inaugurating some useful reforms. He has been investigating the milk supply of the city, and has found a much worse state of affairs than has been suspected. It is stated that there are cases where milk is sent to the city from cows in the last stage of tuberculosis.

MANY of our readers will remember, a number of them with righteous indignation, the enterprising individual who visited the office of several up-town practitioners during the absence of the doctor, and, after making some inquiries, decided that he would not wait, and departed, together with several valuable cases of instruments. The *Lancet*, May 30, under the head of "A Warning," prints a letter from a correspondent who has suffered in the same way. History, indeed, repeats itself.

M. CAHOURS, Member of the Paris Academy of Science, has left a bequest in the following terms: "With a view of encouraging young workers who, for want of sufficient resources, find themselves unable to carry on their researches which are in progress, I bequeath to the Academy, which has done me the honor to admit me to its body, the sum of

100,000 francs, to be distributed each year as an assistance to young men who shall have already shown some good work, especially in chemistry."

THE Illinois Humane Society, 43 Auditorium building, reports that during the month of May it has investigated 235 complaints; rescued and remedied the condition of 30 children; surrendered 17 children to institutions by court on petitions; placed 27 children in institutions temporarily; prosecuted 6 persons for cruelty to children; prosecuted 19 persons for cruelty to animals; laid up 40 horses as unfit for service; removed 18 disabled animals by ambulance; killed 16 disabled and abandoned animals; reprimanded 75 persons and teamsters; imposed \$363 in fines and received \$291 from its contributors.

WE learn that Dr. Grant Bey, of Cairo, has been prosecuting an interesting research for the Smithsonian Institute at Washington, which has resulted in his discovery that the ancient Egyptians of the earliest dynasties used a smokeless light, equal in intensity to our electric light, for lighting their temples and for enabling them to execute the fine work in the interior of their dark tombs.

The Society of Science, Letters and Art of London have awarded Dr. Grant Bey a medal for his scientific work, bearing a very pretty design on one side and, on the reverse, his name, with the date 1890.

—*Egyptian Gazette.*

AT the late Annual Meeting of the Missouri State Medical Association Dr. A. W. McAlister, Chairman on State Medicine, read his report, setting forth the following points necessary to fit a man for the practice of medicine:

1. A clear head.
2. A liberal education.
3. Attendance on three full courses of lectures of nine months each.
4. The diploma recognized only as a certificate of study.
5. An examination before a Licensing Board.

A motion to adopt the report carried.

A DISTINGUISHED physician in London delivered a lecture before a Ladies' Club, in which he intimated that persons predisposed to tubercular consumption would be prohibited by law from marrying. It is said that there was some commotion in the audience, and an audible protest, which the lecturer made the occasion for retiring. A strange influence which this disease exerts on its victims, has been observed by every physician, and this is the unreasonable confidence they maintain to the last that they will recover. A like infatuation seizes those who discover a cure, and their confidence is robust until death breaks the delusion.

SECRETARY RAUCH's enemies as revealed at Springfield are his greatest honor. They embrace the quack doctors and the diploma-selling, quack-doctor-making colleges in this and other States. Allied with these are journals of purchasable morals and virtue. These so-called "newspapers" derive considerable money from the advertising patronage of the quack doctors and the bogus medical colleges. But for this source of income many of them would be seriously impaired in their finances.

It is the hands of these three classes of confidence workers that are now at the throat of the State Board of Health. With Dr. Rauch at its head the Board is all that stands between them and a fat prey.

—*Chicago News.*

VERY sad reading is the report just made to the Brabant authorities on the operations of Golam Kader, an eye quack. No matter what was the disease, the patient came out of his hands with acute ophthalmia. Curable eyes were ruined, total blindness ensued where good chances for recovery had existed, and altogether people paid dearly for their confidence in a brazen quack. Nevertheless, it is certain that the next who comes along will reap as golden a harvest, for the crop of fools is perennial. But it does seem sad that the charlatan will not select a part of the body where he is not so apt to do incurable mischief as when he meddles with the eye.

DUST is the great conveyor of micro-organisms. At 2 A. M., when a city is most quiet, the fewest germs are to be found in the air; at 8 A. M., the industry of domestic servants and dustmen has already made the air teem with germs. At 2 P. M., the proportion has again greatly fallen; at 7 P. M., it is once more high, for many houses are being "tidied up;" besides sundry kitchen operations are unhygienic. Thus the "small hours," unfavorable in many respects to patients hovering between life and death, are the least septic of the twenty-four. The day proportions indicate that household duties cause more septic diffusion than is excited by traffic and industry.

LATELY published experiences of the Pennsylvania Hospital illustrates an important point for medical officers and others to remember. It is clearly shown that typhoid patients brought to hospital before the end of the first week, unless suffering from a very virulent type, are likely to recover. Parallel cases brought in during the second week show three times the mortality. A simple climax is completed by the following clear and concise statement: "When brought in the third week the mortality is terrific; it is a miracle if the patient does not die." These striking facts are borne out by the experiences of fever hospitals in Great Britain. To move such patients then after the first week is very dangerous.

LADY GRADUATES IN IRELAND.—At the recent medical examinations at the Royal University in Ireland, the lady students who presented themselves obtained high places. Miss Hester D. Russell, of the London School of Medicine for Women, carried off the only honor awarded in the degree examination, namely, second class. The exhibition of £25, which is attached to the honor was not given to her, as she was disqualified by collegiate standing. Miss Anna L. Church, of the College of Surgeons, Ireland, was in the upper pass division, and was one of those recommended to be allowed to compete for honors. Miss Frances L. Dick, of the London School of Medicine for Women, passed for the degrees of M.B., B.Ch., and B.A.O. In the "Second Examination" in medicine, Miss Emily Winifred Dickson, of the Royal College of Surgeons, Ireland (daughter of Mr. T. Dickson, M.P.), was bracketed second class with Mr. McMath, and obtained an exhibition of £15.

AMONG the subjects proposed for discussion at the seventeenth meeting of the German Public Health Society, which will take place at Leipzig, on September 17th and 20th, are the following: Report of the Committee on Systematic Researches as to the Self-Purification of Rivers; Sanitary Administration in Relation to Dwellings; Sanatoria for Sufferers from Pulmonary Complaints (to be introduced by Professor von Ziemssen, of Munich); Milk in its Hygienic Relations (to be introduced by Professor

Soxhlet, of Munich); Cool Chambers for Meat and other Articles of Food (to be introduced by Professor Franz Hofmann, of Leipzig). "Gymnastic Inspector" Hermann, of Brunswick, will deliver an address on the School Games of German Youth.

WEEKLY Report of Interments in Philadelphia, from June 6 to June 13, 1891:

CAUSES OF DEATH.		Adults.	Minors.	CAUSES OF DEATH.		Adults.	Minors.
Abscess.....	2			Inflammation bronchi.....	4	3	
Anemia.....	1			" kidneys.....	4	1	
Alcoholism.....	7			" heart.....	1		
Aneurism of the aorta.....	2			" lungs.....	10	10	
Bright's disease.....	9			" pericardium.....	1		
Cancer.....	6			" peritoneum.....	1		
Casualties.....	7			" pleura.....	2		
Congestion of the brain.....	1	3		" s. & bowels.....	5	6	
" lungs.....	2	4		" spine.....	1	2	
Cholera infantum.....	12			Indigestion.....			
Cirrhosis of the liver.....	2			Jaundice.....	1		
Consumption of the lungs.....	32	8		Locomotor ataxia.....	2		
" bowels.....	1			Malformation.....			1
Convulsions.....	2	11		Marasmus.....			18
Croup.....	3			Measles.....	3		1
Debility.....	6			Obstruction of the bowels.....	1		1
Diabetes.....	1			Old age.....	9		
Diarrhea.....	1			Purpura hemorrhagica.....	1		
Diphtheria.....	8			Rapahysis.....	11		
Disease of the heart.....	12	4		Poisoning.....	3		
Drowned.....	2	1		Rheumatism.....	2		1
Dropsy.....	1	1		Rupture of uterus.....	1		
Dysentery.....	1			Sclerosis, spinal.....			
Erysipelas.....	3			Septicæmia.....	1		1
Enlargement of the heart.....	1			Softening of the brain.....	1		
Embolism, cerebral.....	1			Shock, surgical.....			
Fever, malarial.....	1			Suicide.....	3		1
" scarlet.....	8	4		Tabes Mesenterica.....			1
" typhoid.....	2	3		Tetanus.....			2
Inanition.....	2			Uremia.....	2		
Influenza.....	2	1		Wound, gunshot.....			1
Inflammation bladder.....	2						
" brain.....	2	7		Total.....	178	134	

HEALTH IN MICHIGAN, MAY, 1891.—For the month of May, 1891, compared with the preceding month, the reports indicate that cholera infantum, cerebro spinal meningitis, cholera morbus, inflammation of brain, puerperal fever, and inflammation of kidney increased, and that membranous croup and diphtheria decreased in prevalence.

Compared with the preceding month the velocity of the wind was slightly less, the prevailing direction was northeast (instead of west and southwest), the temperature was higher, the absolute humidity was more, the relative humidity was less, the day ozone was more and the night ozone considerably less.

Compared with the average for the month of May in the five years 1886-90, influenza was very much more prevalent, and typho-malarial fever, whooping-cough, diphtheria, remittent fever, membranous croup, intermittent fever, dysentery, and cerebro-spinal meningitis were less prevalent in May, 1891.

For the month of May, 1891, compared with the average of corresponding months in the five years 1886-90, the velocity of the wind was slightly less, the prevailing direction was northeast (instead of west), the temperature was slightly lower, the absolute humidity and the relative humidity were less, the day ozone was more and the night ozone was slightly less.

Including reports by regular observers and others, diphtheria was reported present in Michigan in the month of May, 1891, at forty-six places; scarlet fever at sixty-four places; typhoid fever at seventeen places, and measles at eighty-nine places.

Reports from all sources show diphtheria reported at five places less; scarlet fever at fifteen places less; typhoid fever at three places more and measles at fifteen places less in the month of May, 1891, than in the preceding month.

The Times and Register.

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PAGE	PAGE	PAGE
ORIGINAL ARTICLES.	LETTERS TO THE EDITOR.	BOOK NOTICES.
ON THE ANTI-MALARIAL PROPERTIES OF PAMBOTANO (CALLIANDRA HOUSTONI). By A. E. Roussel, M.D., Philadelphia, Pa. 529	Cases of Hydrophobia. King - - - - - 540	Mademoiselle Giraud: My Wife. Belot - - - 541
THE PNEUMO-THERAPEUTIC INSTITUTE OF BRUSSELS. By Dr. Hovent, Brussels - - 531	Can a Compressed Lung be Dilated? Hoffmann - - - - - 541	Addresses and Essays. Lydston - - - - - 541
ABORTION AT FIVE WEEKS, WITH SUBSEQUENT EXAMINATION OF THE EMBRYO. By T. Ridgway Barker, M.D. - - - - - 533	Why Did They Break? Sangree - - - - - 541	The Review of Insanity and Nervous Disease. McBride - - - - - 541
SOCIETY NOTES.	THE MEDICAL DIGEST.	
PHILADELPHIA COUNTY MEDICAL SOCIETY, 535	A New Method of Performing Circular Entororrhaphy. Lancel - - - - - 538	
The Pneumo-Therapeutic Institute of Brussels. Hovent - - - - - 535	Empyema. Isch-Wall - - - - - 541	
Abortion at Five Weeks, with Subsequent Examination of the Embryo. Barker - 536	Iodoform for Burns. Rottenberg - - - - 542	
On the Anti-Malarial Properties of Pambotano (Calliandra Houstoni). Roussel - 536	Gastric Affections. Winterlitz - - - - - 542	
THE POLYCLINIC.	Paroxysmal Sialorrhoea in General Paralysis. Revue Med. Chir. - - - - - 542	
Chorea. Waugh - - - - - 537	Action of Dog-Serum Upon Human Blood. Luzet - - - - - 542	
PHILADELPHIA HOSPITAL:	Scarlet Fever. Caiger - - - - - 542	
Exploratory Laparotomy. Deaver - - - 537	Injections of the Serum of Animals for Tuberculosis. Richet - - - - - 542	
Treatment of Pneumonia. Solis-Cohen - 537		
EDITORIALS.		
PHENOMENAL HIGH TEMPERATURE - - - 539		
		MEDICAL NEWS AND MISCELLANY, 548
		ARMY, NAVY, AND MARINE HOSPITAL SERVICE - - - - - 550
		NOTES AND ITEMS - - - - - iv, xli

Original Articles.

ON THE ANTI-MALARIAL PROPERTIES OF PAMBOTANO (CALLIANDRA HOUSTONI).¹

By A. E. ROUSSEL, M.D.,
Demonstrator of Physical Diagnosis in the Medico-Chirurgical College;
Physician to the Howard Hospital; to the Southwestern Hospital, etc.

I TAKE pleasure in bringing to your notice a drug which has recently been the subject of considerable experimentation as regards its anti-malarial properties, but which has not as yet been tested, so far as I know, in our own country.

The pambotano, or calliandra houstoni (Baillon) is a small tree, growing from three to five feet high, and is found principally in Mexico, where it seems to have possessed considerable reputation for its medicinal qualities.

It was first prominently brought before the attention of the medical profession through an article of Dr. J. Valude, which was presented to the Académie de Médecine, of Paris, by Dr. Le Roy de Mericourt, on the 19th of November, 1889, and which resulted in a report on the subject by the Académie, on February 18, 1890.

In this report Dr. Dujardin-Beaumetz, although doubting the ability of this drug to replace quinine, admits of its apparent value, and suggests the necessity for further experiments in this direction. Dr. Villejean, in a chemical analysis of the plant, has as yet been unable to isolate its active principle, but notes the presence of a peculiar tannin, which yields a dark-green precipitate with the perchloride of iron, and thus closely resembles the tannin of catechu and cinchona.

¹ Read before the Philadelphia County Medical Society, June 10, 1891.

Dr. Valude uses a decoction and alcoholic elixir in doses of 70 grammes for an adult, and 35 grammes for a child under twelve years of age. One litre of this solution should be divided into four doses, and taken within the twenty four hours, each dose to be sweetened and drank hot. His report comprises personal observations of fifteen cases of malarial fever, besides a résumé of the results obtained in Mexico, Japan, and Italy. Of the fifteen cases in question, seven were complicated by other diseases, such as la grippe, tuberculosis, grave anæmia, and in one case by intermittent dental neuralgia. In these last cases the periodical attacks were suppressed, while the results in the uncomplicated cases were uniformly successful, and in the majority of instances but one dose of pambotano was necessary to effect a cure.

The following observations are related in detail:
CASE I.—Girl of sixteen years; very anæmic quotidian, fever beginning May 17, 1886, at 2 o'clock, and becoming permanent with exacerbation the following day at 2 o'clock. Continual headache, which increases at time of access. Decoction of pambotano May 22. Vomiting at the second dose. Nausea with first dose. Cephalalgia disappeared after first dose. Since that time the fever has not returned.

CASE II.—Child of twelve years; same type as above, with violent cephalalgia, which is worse at the beginning of fever, 4 or 5 o'clock in the evening. Decoction of pambotano the fourth day of the fever. Nausea and vomiting after first dose. At third dose child vomited food taken one hour before, but no medicine. Food taken twenty minutes after the last dose was followed neither by nausea nor vomiting. The bowels were opened after the first two doses. The headache disappeared after the first. At 4 o'clock the fever did not return. Two doses alone had been absorbed. The cure was definite.

CASE III.—Man of twenty-two years, suffering from intermittent fever contracted at Tonquin. Four different attacks while at Tonquin at two or three months interval (in September, December, February, and April). Returned to France in May. Return of fever in July, tertian type. Decoction of pambotano the day of the attack. Some nausea, no vomiting. After the first dose the headache disappeared. The fever did not return. Fifteen months afterward the cure was maintained, and the fever which had previously returned every two months had not reappeared.

CASE IV.—Man of forty-four years. Subject to the tertian fever, two attacks of which have been treated by quinine. At the third attack decoction of pambotano. Some nausea. The fever has not returned.

CASE V.—Woman, forty-eight years of age; quotidian type, commencing at noon with a violent pain on the right side. The elixir, containing 50 grammes of the root, was given on the 30th of March. Some nausea. One passage after the first dose, which caused the disappearance of the pain above mentioned. At 1 o'clock the customary chill did not appear, but a slight elevation of temperature was noticed. On the 31st of March the fever returned to a slight extent. On the 2d of April no fever, but the appetite was poor and the tongue coated. After the 3d of April the fever no longer returned.

CASE VI.—Man, forty-six years of age. First attack. Suffering for eight days from well-marked attacks, with violent cephalalgia. Decoction of 70 grammes of pambotano. No bad results. At noon, the customary hour for the chill, nothing was noticed, notwithstanding that only two doses had been taken.

The following cases have also been collected by Dr. Valude:

Dr. J. M. Bandera, of the University of Mexico, after carefully testing the drug in various hospitals, declares that he has obtained excellent results, even in cases which had not yielded to the use of quinine.

Professor J. D. Campuzano, of Tacubaya, as well as Dr. J. B. Lobato, report excellent results.

The government of Guanajuato appointed Drs. J. Hernandez, R. Lopez, and T. Dominguez to officially report on the merits of pambotano, and after careful experiments, these gentlemen reported marked success.

Dr. Lafont reports having treated the Conseiller-general of French Guiana, who had suffered from a severe type of malarial fever for five years, which had resisted the use of quinine, arsenic, as well as a long sojourn at Vichy. One dose of pambotano was sufficient to effect a cure, which is maintained until the present time.

In the province of Salto, Argentine Republic, Drs. C. Cotas, J. Tedin, and A. Valdez have treated numerous cases of malarial fevers, some of which were uninfluenced by the administration of quinine, but all of which yielded to the use of pambotano.

Concerning the results obtained by its use in the French and German hospitals at Yokohama, Japan, the Belgian minister reports that in all cases a cure resulted within forty-eight hours.

Dr. A. de Cadilhac, an Italian physician, reports the cure of a case of obstinate malarial fever, contracted in the neighborhood of Rome, which had resisted the use of strong doses of quinine.

Dr. Betances, now of Paris, reports three cases of severe malarial fever, contracted at Panama by employés of the Canal Company, which had totally resisted large doses of quinine and arsenic, as well as

the douche treatment. In each case one dose of pambotano resulted in a permanent cure.

Dr. Depeton, practising in the Basses Pyrenées, gives a history of three cases, with an equally successful termination.

Dr. De Chapelle, of Bordeaux, reports a case of quotidian intermittent, in a patient seventy-two years of age, where quinine at first yielded good results, but afterward lost its effects. The patient was in a desperate state when he was placed upon one day's treatment of pambotano, which resulted in a total cure.

Since the collection and publication of these statistics numerous cures have been reported by physicians in different parts of France. The results, as reported, are so uniformly successful that the question arises whether a certain allowance should not be made for the enthusiasm which so generally attends the introduction of a new remedy.

Still more recently (*La Tribune Médicale*, April 30, 1891) Dr. J. Pelletan reports the case of a man, thirty-eight years of age, who contracted repeated attacks of malarial fever of divers types while living in various parts of South America. Returning to Paris some years since the fever reluctantly yielded to the quinine treatment, but was followed by obstinate neuralgias in various parts of the body, and particularly by an atrocious sciatica, which caused the most intense suffering.

Notwithstanding the most varied forms of treatment, nothing afforded even temporary relief, except hypodermics of morphine.

The patient at this time was marked emaciated, his complexion of a pastry yellow, with a parchment-like skin, presented a cachectic appearance, and the spleen was markedly enlarged. No history of syphilis or alcoholism.

On January 19 last he was ordered a dose of pambotano (Midy).

Up to the present time (April 20) he has been entirely free from all pain, notwithstanding that he was exposed to the inclement weather of a Paris winter.

My own observations are limited to eight in number as far as the malarial fevers are concerned. Each of the above cases, however, was carefully observed for a varying period of time before the administration of the medicament in order to insure accuracy of diagnosis. I have also observed its results in other diseases, such as la grippe, typhoid fever, phthisis, etc., but, frankly speaking, no influence could be detected upon the course of these different maladies.

The preparation used in these cases was an alcoholic elixir prepared by Midy, of Paris, and kindly furnished me for the purpose by Rigaud and Chapoteaut. Each bottle of the elixir contains 90 grammes, representing 70 grammes of pambotano. The contents of each bottle is to be administered in four equal portions within the twenty-four hours in hot sweetened water or tea, and preferably taken on an empty stomach.

The cases are as follows:

CASE I.—A clergyman, forty years of age, contracted a quotidian intermittent while on a gunning trip in Virginia, six years ago. Since that time he has, without exception, been subject to a renewal of the attacks every spring, and occasionally in the fall of the year. These attacks yield to treatment by large doses of quinine and arsenic, but generally incapacitate him from work for a period of about two weeks. His present attack commenced with a chill on March 2, 1891, at 4 o'clock in the afternoon, followed by a temperature of 104°, and a return of the same symptoms on the succeeding day. He com-

menced taking the elixir of pambotano on March 4, but experienced a modified chill on the afternoon of the same day; temperature 102° . Some nausea after the first dose. Since that time he has had no return of the above symptoms.

CASE II.—Girl, aged seventeen years, employed in a mill, residing in the southern section of the city, presented herself at the Southwestern Dispensary with the history of having had a chill on the previous day followed by fever and sweating. Temperature at the present time normal, but patient feels weak and languid; tongue coated. She was directed to return the next day. On this occasion the thermometer marked $102\frac{2}{3}^{\circ}$. She commenced the pambotano the same afternoon, taking two doses on that day, and two the day following. The first dose was vomited within fifteen minutes, but the subsequent doses were retained. She remained under further observation for ten days, with no return of the fever.

CASE III.—Woman, aged thirty-seven years, dress-maker; has had attacks of quotidian intermittent in the spring of the year for the last four years, which kept her confined to the house for about ten days on each occasion. Was taken with a chill March 24, followed by the regular symptoms, which were again repeated the next day. Commenced the use of pambotano March 26. Some nausea after each dose, but no vomiting. Bowels opened three times during the course of the day. Resumed her occupation on the 27th, and subsequently reports (June 8, 1891) that she has been entirely well ever since.

CASE IV.—Commercial traveler, aged twenty-five years. While in Florida last autumn he was taken ill with a severe type of remittent fever, which confined him to the hotel for a period of seven weeks, and which finally yielded to large doses of quinine and arsenic. Present attack commenced April 3 with chill, fever, intense headache, coated tongue, nausea, and some vomiting. Commenced the pambotano on April 4; the patient vomited the second, third, and fourth doses. On evening of same day he was given 3 grains of calomel in divided doses, to be followed by a saline. On the morning of the 5th, the fever still being present, the drug was ordered continued as on the previous day, but he again vomited the first and third doses, besides which the bowels were opened at least a dozen times. On the 6th the patient appearing no better, and the irritability of the stomach still being present, he was placed on suppositories of quinine, together with the use of Fowler's solution internally. After further treatment of about a week, the patient entered into a rather slow convalescence.

CASE V.—A woman of thirty-five years, with a distinct malarial history, had been under my care for over a year, suffering from severe attacks of neuralgia in various parts of the body, but particularly of the facial type. Rarely a week passed without severe suffering on her part. Quinine, arsenic, antipyrine, and the general routine treatment, including electricity, had been without any permanent result; the same may be said of the extraction of several decayed teeth. Commenced taking pambotano on April 6 without suffering any inconvenience from the drug. The pains disappeared to a great extent until April 18, when she experienced another attack, but milder in character, according to her testimony. Another dose of pambotano was administered April 19, since which time she has been free from pain, with the exception of slight twinges occurring in damp weather.

CASE VI.—Laborer, aged forty years, applied at my service at the Howard Hospital, May 2, 1891, with a tertian intermittent, the result of an attack

contracted four years ago, and which has since visited him every spring and fall. Commenced pambotano the next day, since which time the fever has not returned.

CASE VII.—Laborer, aged thirty-five years, applied at the Howard Hospital, May 22, with a tertian intermittent, which, he thinks, he contracted while digging at Greenwich Point. Some irritability of the stomach being manifested, small doses of calomel were ordered for that day. Commenced pambotano on the 23d, but vomited the third dose. Slight chill on morning of the 24th. Drug continued during the day, after which no further treatment was necessary.

CASE VIII.—Laborer, aged thirty-two years, applied at the Howard Hospital, June 2, with quotidian type of fever, headache, vomiting and diarrhoea. Commenced pambotano June 3, but vomited each and every dose. Drug continued June 4, and only the last dose was vomited, but the number of intestinal movements were greatly increased and accompanied by some griping pain. The fever not being apparently influenced, he was placed under large doses of quinine, and is now entering convalescence.

As will be seen by the above my results, although decidedly encouraging, are hardly as satisfactory as some of the reports from abroad. In the two cases where the exhibition of the drug remained apparently without result, the question may arise as to whether a sufficiently large quantity was really absorbed on account of the gastro-intestinal irritability. Indeed, this undesirable feature seems to play a more or less important part in most of the cases.

For the above reason it would seem especially desirable that an active principle should be isolated. And we can only wonder that this has not already been accomplished in a drug whose action seems to be sufficiently pronounced to obtain results within such a comparatively short period of time.

In conclusion, it would seem to me that the results already obtained are sufficient for further work in this direction, especially as no opportunities for observing malarial fevers are better than those of the French physicians.

THE PNEUMO-THERAPEUTIC INSTITUTE OF BRUSSELS.¹

By DR. HOVENT,
OF BRUSSELS.

LAST summer I received a visit from Dr. S. Solis-Cohen, with whom I had already been corresponding on the subject of pneumo-therapy. I was gratified by his expressions of astonishment on inspecting the Pneumo-therapeutic Institute. I also felt a pride in being able to teach something to a *confrère* from the country whence progress in every science comes to us.

At the request of my guest of some hours, I shall endeavor to describe the establishment with which I am connected, briefly relate its history, and indicate the physiological and therapeutic actions of air-baths.

In 1879, a number of prominent Belgians who had undergone successful aëro-therapeutic treatment at Contrexéville, a French spa, determined to establish an institution for a like purpose at Brussels, and accordingly invited Dr. Tamin Despalles, under whose care they had recovered, and who was already well known through his works on neurology and aëro-therapy, to come and create in Brussels an establish-

¹ Read before the Philadelphia County Medical Society, June 10, 1891, by Dr. A. A. Eshner.

ment in which all the improvements in his favorite treatment should be found. The invitation was accepted and a limited society was at once organized. The founder, however, did not long live to see the fruition of his work, and was succeeded in turn by a lecturer at the University, an academicien among others, and finally by myself.

The Pneumo-therapeutic Institute of Brussels is the largest and most complete in the world; it is situated in one of the healthiest parts of the city, near a small park. As first constructed, it was intended to practise oxy-therapy, azo-therapy, aëro-therapy, including compressed or rarefied air-baths and also anæsthesia by the method of Paul Bert; afterwards, this last method and the azo therapy were given up and numerous improvements were successively introduced; so that now the establishment furnishes the following services:

1. Baths of compressed or rarefied air, with or without supersaturation of oxygen gas.
2. Inhalations of compressed air with expirations into rarefied air.
3. The sale of oxygen gas in the city, the country, and even abroad.
4. Electro-therapy, by static and dynamic machines.

I have nothing to say upon these three last points. The works of S. Solis-Cohen have elucidated the treatment by pneumatic differentiation better, if with less prolixity, than any author of our continent. To make the establishment complete, it is furnished with the apparatus of Maurice Dupont, Geigel and Mayr, Hovent, Schnitzler, Solis-Cohen, Tobold, and Waldenburg. I use these apparatuses, however, only upon request by my *confrères*, because I have personally ascertained that, while they are of real value, yet, as compared with the air-baths, their utility in several directions is very questionable. In this connection a recent paper by my friend, Dr. Arntzenius, of Amsterdam (*Geneeskundige Courant*, 29 Juni, 1890), is of interest.

Oxy-therapy and electro-therapy are methods of treatment better known and more widely practised in the United States than in Europe. I will, therefore, not consider them.

I now come to the subject which is really interesting to my American colleagues—baths of compressed or rarefied air. These are given by means of seven iron chambers of varying capacity, some being capable of comfortably containing from two to ten persons. Each chamber is very well constructed; it is supplied with several windows of glass two centimetres (three-quarters inch) thick; it has a duplicated door, or perhaps better expressed, two doors enclosing a lobby, in which the doctor, entering by the outer door, can shut himself, and then equalizing the pressure, can open the inner door and speedily reach the patient for any purpose without great alteration of the pressure in the chamber. Another smaller door, also duplicated, serves for the purpose of handing to the patient books or whatever may be desired. Electric-bell, elbow-chairs, toilet-tables, manometer, thermometer, hygrometer, etc., are all at hand.

From the chamber so described emerge six pipes leading to the underground tanks of 1, compressed; 2, rarefied air; 3, nitrogen; 4, oxygen gas; the last two pipes are for the purpose of purifying the air, of which I shall soon speak. Each of the first four pipes is attached to a little tank which permits of the measurement of the quantity of air, nitrogen or oxygen, introduced into the chamber, or the quantity of air removed.

The large tanks in which the air or gas is compressed, or rarefied, are ten in number. Each holds several thousands of litres. The compression or the rarefaction of air or gas is obtained by means of a gas engine of eight-horse power. The tanks will bear seven or more atmospheres of pressure, or a corresponding degree of rarefaction.

The manipulations are as follows: If it is desired to place the patient in a chamber, and the pipe connecting the chamber with the tank of compressed air, for instance, is opened, this compressed air rushes in; its quantity can be regulated according to circumstances. The reverse takes place if rarefied air is to be used; the air of the chamber rushes out and the patient remains in a relative vacuum.

One serious and even capital drawback to the employment of air-baths lies in the fact that in the course of the two hours, the duration of an ordinary sitting, the air within the cabinet soon becomes foul from the processes of respiration, perspiration, etc. The establishment at Brussels is the only one in which this inconvenience is efficaciously overcome. The air is being constantly withdrawn from the occupied chamber, and purified by being passed through several iron Wolff's jars with chemicals, to be again introduced, the same degree of positive or negative pressure being always maintained.

It may be desirable to impregnate the atmosphere of the chambers with the vapor of certain medicinal agents; it is an easy matter to place the substance to be used in the path of the air current, or more simply to put some drops of an essence on boiling water into the chambers. I frequently and successfully use pumiline essence.

This is, in brief, all that I think necessary to give a fair idea of the application of the air-baths. I shall now consider their physiological and therapeutic action.

To treat this subject at length, as it deserves, would require too much space; therefore, I shall confine myself to an epitome which, I hope, will serve as an index for the reader. In English medical literature I know only of the papers of the eminent C. Theo. Williams (on air-baths; I shall say nothing of pneumatic differentiation). This is in striking and unaccountable contrast with the profuse medical literature of the continent. I shall quote from some of our authors, but chiefly from my personal experience.

The compressed air-bath more completely expands the pulmonary vesicles and increases their elasticity; the diaphragm and the base of the lungs descend lower; the respiratory process is more perfectly and less frequently performed; the peripheral circulation is less active, with some degree of decongestion of the skin and the mucous membranes (nasal, laryngeal, pulmonary, etc.); the pulse is less frequent and more full; the appetite and strength increase rapidly; the nervous system is undoubtedly invigorated. One may observe that these effects are corollaries of one another and result either from mechanical or chemical action; indeed, the oxygen of compressed air is no longer oxygen, but some form of ozone.

The rarefied air-bath has not been so well studied; nevertheless, it is employed with much success by some practitioners, who seek in it a reproduction of mountain atmosphere. It has also been recommended for rickety children, when the thorax is deformed. Recently it has been used alternately with the compressed air-bath, when a doubt exists as to whether a patient should be sent to the mountains or to the seashore. The therapeutic uses of the air-baths are

very numerous, but easily deduced from the foregoing considerations.

Asthma is the principal affection for which compressed air-baths are employed. Eighty per cent. of recoveries are obtained after twenty to sixty sittings. During the first sitting the dyspnoea disappears when the pressure of air is sufficient; this result becomes permanent only after a number of sittings. I remember but one case, that of an American patient coming from Oregon, in which the paroxysms reappeared as soon as the pressure was lowered. The patient was very well while under pressure, and I have frequently kept him enclosed for eight or ten hours instead of two. I diagnosticated a traumatic medullary lesion, limited to the respiratory center.

In pulmonary emphysema, the air-bath empties the vesicles and increases their elasticity, so that dyspnoea diminishes. The first sitting is usually followed by a notable improvement. As in asthma, the success is generally striking and permanent. Pulmonary congestions, pulmonic processes preceding or following pneumonia and hemoptysis, are cured mechanically, since the compressed air provokes anemia of the pulmonary tissues. I have some absolutely confirmatory observations. Chronic bronchitis and bronchorrhoea are always improved, so far as concerns dyspnoea, cough, expectoration, and general health. The first effects of the treatment are an increased expectoration up to the point of completely ridding the lungs of mucus, and simultaneously a decongestion of the respiratory mucous membranes. The last action must be invoked in explaining the beneficial influence of compressed air in coryza, chronic pharyngitis and laryngitis, and in that exaggerated susceptibility of the mucous membranes, as a result of which the patient is constantly exposed to the danger of catching cold. I have recorded two cases of chronic amygdalitis, in which resection had been contemplated, and in which I obtained complete cures by compressed air-baths.

In whooping-cough, "the beneficial action of air-baths is undeniable," said Dujardin-Beaumetz. The cure is obtained after ten to fifteen sittings; and generally the child gains from one to three pounds in weight. Jaccoud charges with gross neglect the physician who does not submit his consumptive patient to aëro-therapy. Oertel thinks the compressed-air treatment far superior to climatic treatment in any country. Prof. Bertin (Montpellier) has recorded five cases of recovery in consumptives in the third stage.

Heart disease had long been considered the only drawback to aëro-therapy, but since I have successfully treated a number of cases with cardiac complications, I no longer hesitate to treat such cases, only using certain precautions.

In catarrhal deafness compressed air effects a natural catheterism. I have not infrequently seen patients suffering with asthma or other complaints emerge from the chamber declaring that their hearing was better than for many years.

Dujardin-Beaumetz says: "Compressed air-baths are to be preferred to any other method of treating chlorosis, anæmia, diabetes, albuminuria, and gout."

Obesity, also, is favorably influenced as a result of the acceleration of organic combustion, and the more active elimination of urea and carbonic acid.

In conclusion, I must add that Dr. Arntzenius has cured some cases of neurasthenia, and that I have recorded three observations of dysmenorrhoea being permanently cured by a pneumo-therapeutic course. I think these results are due to the general invigorating power of the treatment.

If I should quote all the authors who have written upon the subject of air-baths, not only in France, where the treatment was originated, but in Russia, Scandinavia, Holland, Germany, Italy, and Spain, the list would be a very long one. I wish only to note that none of them has expressed an unfavorable opinion. I am convinced that the treatment which I have expounded is entirely reliable, and I shall be happy if my paper contributes to make the medical profession of the United States acquainted with the better method of pneumo-therapy.

ABORTION AT FIVE WEEKS, WITH SUBSEQUENT EXAMINATION OF THE EMBRYO.¹

By T. RIDGWAY BARKER, M.D.

THE following case is reported, not on account of the infrequency of abortion at such an early period of gestation, but rather with the hope that a full and detailed account, accompanied with a thorough examination of the embryo, which one is rarely successful in securing, may prove of interest to those devoting their time and attention to an heretofore much neglected subject:

M. S., aged twenty years, married, no children, gives the following history: Menstruation began at the age of thirteen years; she had always been regular in her menses, though at times the flow had been profuse, and accompanied by considerable pain. Her general health is good; there exists no kidney trouble nor specific taint of any kind. She last menstruated on November 6, 1890; duration five days. The discharge being normal in every respect, save that it was accompanied with some abdominal pain. On the arrival of her next period to menstruate, December 4, there was no flow, nor any symptoms indicative of its approach. The patient was gratified by this state of affairs, as she believed herself pregnant. Week succeeded week without any appearance of her sickness, and hope continued to grow in her breast.

On the 26th of December I was called to see Mrs. S., whom I found very anxious and alarmed about her condition, as she had passed, she told me, a small clot of blood, and declared she felt as if her sickness was about to return, though it was not at a menstrual period. On questioning her further, I was unable to discover any symptoms of pain, and therefore merely advised her to keep quiet and avoid exercise of an exhaustive nature, as I feared should she fail to heed my words of caution that she might suffer from an abortion, it being my opinion, on examination of the vulva and mammæ, that she was some five weeks pregnant. While, of course, it was impossible to make a positive diagnosis at this early stage of gestation, still from the globular form of the breasts, the prominence of the nipples, and the dimpling at their summits, in addition to the purplish hue of the vagina, I considered such a supposition justifiable. As my patient was a blonde, the areolæ were faint, and could not, therefore, be regarded as of much importance. Nor were there sufficient gastric or nervous symptoms present to warrant me in expressing a more positive opinion.

On the following day I called to see Mrs. S., whom I found suffering great pain, which had come on during the night, and was paroxysmal in character, and referable to the back and hypogastrium. Her distress was of such an aggravated form that it was necessary

¹ Read before the Philadelphia County Medical Society, June 10, 1891.

to afford relief as promptly as possible by giving a hypodermic of sulphate of morphine. I learned on inquiry that during the night she passed several clots of blood, and that the flow had been so free that she was obliged to have frequent recourse to a change of napkins. The pulse, at the time of my morning visit, was quick and weak, and the temperature considerably above the normal. I determined, therefore, to explore the vaginal canal, and at the same time examine digitally as to the condition of the uterus. The cervix was discovered by the finger to be softened and the os slightly patulous, while the body of the uterus was enlarged and tender. Continuing my examination I felt several clots in the posterior fornix of the vagina; these I removed, which, on escaping into the palm of my hand, were found, in part, to consist of coagulated blood, but, in addition, an ovum with its membranes intact. This was placed carefully aside until my patient had been rendered more comfortable.

The treatment was generally symptomatic, consisting of anodynes and antipyretics, which seemed all that was required, as the hemorrhage was slight, and not likely to increase, but rather diminish, since the uterus had expelled its contents. My attention was now directed to an examination of the product of conception. The ovum, to the naked eye, had the appearance of a pale-yellow vesicle, save where the crimson shaggy villus processes projected from the chorionic membrane. The whole mass measured six-tenths of an inch in diameter, while the length of the villi averaged only one-tenth. At the point where the outer portion of the chorion had been torn off from the ovum (indicating the place of separation of the ovum from the decidua), the membranes were so thin and transparent that the eye could clearly discern through them the diminutive embryo, but one-fifth of an inch in length, surrounded by its amnion, which closely invested it. From its caudal extremity could be seen the allantoic stalk extending out to the periphery of the ovum where it fused with the subzonal membrane. The direction which this vascular outgrowth was observed to take was, first, at right angles to the long axis of the embryo until it passed beyond its inferior extremity, when it made an abrupt turn and changed its course so as to run parallel to that same longitudinal axis. Two vessels of a crimson color were visible, but they could not be traced to the periphery, though very distinct for more than half the length of the allantoic stalk. That portion of the ovum from which the chorionic layer with its villi had been torn off was directly at the point where the duct of the allantois joined the outer ovular membranes. In other words, the outer layer of the chorion with its villi had been separated from the ovum at what one may reasonably suppose was destined to be the placental site. Hence, one is justified in concluding that the villi in this locality were larger and more deeply imbedded in the placental decidua (decidua serotina) than at any other point. Further, that the ovum was lost, not on account of any morbid state of the uterine mucous membrane, but through traumatism, the source being unaccounted for and unknown. The villa appeared perfectly normal, and were of a bright crimson color. As regards their structure and development, there was nothing suggestive of any pathological change having occurred. By means of a keen, delicate instrument it was possible to dissect the membranes entering into the formation of the chorion, and expose three layers to view.

The external, from which the villi were outgrowths, being the epaque altered vitelline membrane; the middle, thin and transparent, I judged to be the remains of the zona pellucida and false amnion (subzonal membrane), while the third, and internal, similar to the middle coat, represented the membranous portion of the allantois. Of these three separable membranes making up the chorion, the external alone was opaque. The ovum was slightly heavier than water, yet did not sink to the bottom of the phial in which it was placed, the villi seeming to buoy it up. Beneath the chorion and enclosed by it was a space filled with some thirty minims of a clear, highly refractive fluid, almost colorless, separating the chorionic walls from that of the amnion.

This fluid was of a neutral reaction. Cutting through the layers of the chorion, the fluid was permitted to escape, but did so very slowly, as there existed delicate bands of fibres extending from the amnion to the chorion. These fibres did not cross each other, but radiated from the diminutive amnion, like the spokes of a wheel. It became necessary to divide these before the embryo with its membranes (amnion) could be liberated. The allantoic attachment was not, however, disturbed, that the relation of the parts might not be destroyed. Having freed the amnion, it became advisable to extend the examination so as to include the embryo and its appendages.

The umbilical vesicle had undergone atrophy, and was apparently quite empty. It inclined toward the abdomen of the embryo, and was scarcely as large as its neighbor. It was pear-shaped, and resembled a balloon that had almost collapsed. No vessels of any kind were visible in or upon its walls, which were corrugated and shrunken.

Proceeding next to a microscopic examination of the embryo by means of low and high power objectives the following structures were studied: The embryo occupied a position at the centre of the ovum, where it remained almost stationary, being held in place partly by the amnion and its chorionic fibres, and partly by the allantois. It was a yellowish-white, opaque, gelatinous mass of matter, soft and friable.

The outer covering consisted of round nucleated embryonic cells closely packed together. The long diameter of the embryo, corresponding to the vertebral axis, was one-fifth of an inch in length, while its transverse diameter was not more than one-fourth as great. No eyes were visible, though diligently sought for, nor was it possible to discover even rudimentary upper or lower extremities. The caudal portion of the embryo was very distinct, and being slightly transparent one could see without difficulty the segments of the notochord and the embryonic vertebral arches in their process of development through the outer covering. The abdominal walls were still separated, and hence there existed a direct means of communication between the umbilical vesicle and the visceral cavity. The cephalic extremity of the embryo presented nothing peculiar nor characteristic, being simply a rounded mass of matter, similar in appearance to that making up the body walls. The line of demarkation between the head and the trunk was but a constricted portion, which represented the neck. No bronchial arches were made out, nor the presence of any oral cleft. Examination of the deeper structures was rendered impossible by the rapid disintegration of the tissues.

As regards the patient, after a week's rest in bed, necessitated by the nervous prostration incident to

the sympathetic disturbance, she regained perfectly her health and strength, and there remained no uterine or other unpleasant sequelæ.

In this report of my examination of a five weeks embryo and its coverings, I am well aware that there are statements quite at variance with those recorded by several authors, among whom may be mentioned Hirst, in his *System of Obstetrics*, Vol. I., wherein is stated, page 129: "In the human embryo the period during which the umbilical vesicle increases in size ends at about the sixth week; then its rapid diminution commences." Yet, in my specimen, I found the vesicle almost empty, much atrophied, and its walls shrunken at five weeks gestation. Again, as to the number of coats comprising the chorion: by nearly all the authorities it is said to consist of but two—externally, the subzonal membrane; and internally, the allantois—through the disappearance of the vitelline membrane, zona pellucida, and internal lining membrane of the primitive ovum. Yet, when I began the dissection of these chorionic layers, I found it possible to separate *three* distinct membranes as described above. The villi were further noticed to be outgrowths from the external layer, not being imbedded in any way in the underlying structures. As to the absence of eye-spots and rudimentary extremities I have no satisfactory explanation to offer. This lack of development may have been due to an insufficient supply of nourishment, or subsequent investigation may prove these structures to appear at a later stage of gestation.

Society Notes.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting June 10, 1891.

The President, JOHN B. ROBERTS, M.D., in the Chair.

THE PNEUMO-THERAPEUTIC INSTITUTE OF BRUSSELS¹

was the title of a paper by DR. HOVENT, of Brussels, which was read by DR. A. A. ESHNER.

DISCUSSION.

DR. THOMAS J. MAVS: I am a firm believer in the efficacy of compressed and rarefied air in all kinds of chest diseases as well as in general diseases of the body. My experience has been limited to the use of these agents with the Waldenburg and Cohen Richardson apparatus. These apparatuses are of value in many forms of lung disease, especially in incipient phthisis, bronchitis, and in asthma. You cannot use rarefied and compressed air indiscriminately. Rarefied air is suited for some conditions, and compressed air for others. I think also that in certain forms of incipient phthisis compressed air will tend to aggravate the disease. If the temperature is above 100° its use will tend to increase it. I have given up the use of compressed air alone, and now employ oxygen and nitrous oxide under pressure, either with or without air.

In Berlin I saw cabinets similar to those described in the paper. They certainly do a great deal of good, but, strange to say, most of the writers speak of the value of compressed air without saying much of the

value of rarefied air. I think that by immersing a patient in rarefied air you obtain the same effects as you would by placing him at a high altitude. I do not think that the good comes so much from the effect upon the lung as from the influence which is exerted upon the whole body. By taking off part of the pressure from the surface the resistance to the circulation is diminished, and in that way the blood is permitted to reach the periphery, and nutrition of the out-lying parts is stimulated. I think that in this lies the great and chief value of mountain air in the treatment of consumption.

The influence of compressed air upon hearing has been referred to. It has been found in the cabinets at Berlin that the compressed air increased the sense of hearing to every one, but, so far as I know, this is only temporary. Those who were hard of hearing will improve for a time, but soon the hearing is as bad as before.

DR. S. SOLIS-COHEN: Except from reading, I know very little about this particular branch of pneumo-therapeutics, my experience being confined to the method by which the patient inhales from or exhales into compressed or rarefied air. The method of immersing the patient in an atmosphere of modified pressure requires expensive apparatus, but from what I saw in Brussels, and from the examination of patients with a comparison of their previous histories, I believe that the method accomplishes all that Dr. Hovent claims for it. I went into the cabinet myself, but did not remain long; the noise in the ears and the sense of fullness in the head were sufficiently unpleasant to make one wish to get out as soon as possible. All who have used this method, with the exception of Waldenburg, claim that it is superior to the differential method, though they admit the greater availability of the latter. I have had no opportunity of comparing the two methods, but my experience with the differential method has been thoroughly satisfactory. The remark of Jaccoud, quoted by Dr. Hovent, will bear repetition; I would, perhaps, slightly modify it and say, "that whoever fails in a suitable case of phthisis to give his patient the benefit of a trial at least of *aëro-therapy*, fails to do his duty." I do most sincerely believe that the routine writing of prescriptions, with a neglect of the mechanical means so far superior in many cases, is a failure on the part of the medical profession to do its duty toward those whose lives are, humanely speaking, entrusted into its hands. My personal experience now extends over ten years, and I should not like any patient of mine to be deprived of the opportunity of a trial. Inhalation of compressed air will not work miracles. It will not revive the dead. But it will help the patient to fight the disease. It dilates the air cells, improves the quality and distribution of the blood, and gets rid of accumulated decomposing products which may give rise to septic fever.

DR. JAMES C. WILSON: I would ask whether it is not the experience of patients that after a time these unpleasant sensations, due to disturbance of circulation, diminish?

Dr. Cohen has more right than any one else to arraign the profession for neglect of these mechanical measures, for he has been a pioneer in this country, and a consistent practitioner in this particular branch of therapeutics. At the same time, I am at a loss to understand what view a man occupying Dr. Cohen's position can take of the decadence of the enthusiasm which followed the invention of the pneumatic cabinet, four or five years ago. There was, unquestionably, a most excellent device for the practice of such

¹ See page 531.

methods as Dr. Cohen advocates. Many medical men availed themselves of this apparatus, but now one hears nothing of the pneumatic cabinet. Many who at first claimed excellent results from the apparatus have abandoned its use.

DR. LAWRENCE F. FLICK: I have no personal experience with this mode of treatment. I, however, believe with Dr. Mays, that compressed air may do considerable harm in a certain class of cases. I have seen some things in practice which tend to confirm that view. Where the disease is in an acute stage the quieter the circulation the better for the patient. I have seen a case where even a little exertion more than was prudent precipitated a general tuberculosis where the disease had been simply local. I believe that there is a class of cases where the application of compressed air would be of benefit—cases in which the acute stage is passed, and there is considerable material to be gotten rid of.

It seems to me it is hardly fair to arrange the profession for neglecting the use of this method of treatment. It is scarcely right to deal in a general way with this subject without giving detailed accounts of the benefits of the treatment. If such wonderful results are obtained, we should be shown those results.

DR. SOLIS-COHEN: In reply to Dr. Wilson, I would say that there is no question that tolerance to the effects of immersion in compressed air is gradually established just as tolerance to the effects of altitude is established.

Allusion has been made to the absence of reports of the effects of rarefied air-baths. These have been tried, but abandoned. Paradoxical as it may seem, it is the compressed air-bath and not the rarefied air-bath that simulates the therapeutic effects of mountain residence. The complaint of Dr. Flick is not well founded. These methods have been in use since 1838, and numerous cases are on record. I have reported a few, but not many, because at this late day it is superfluous.

In reference to the pneumatic cabinet, the methods employed in exploiting it were a sufficient reason why it should not find favor with the bulk of the profession. Then, again, it is a very troublesome and expensive means of doing what can be done much more cheaply and simply. Many physicians of high repute, however, still use it. Among others I may cite V. Y. Bowditch, of Boston. We may rest assured that no physician who has used pneumatic treatment will ever abandon it. The question of apparatus is secondary. The pneumatic cabinet has the same disadvantage that belongs to the pneumatic chamber, and that is, that the patient is compelled to visit the physician to obtain the benefit of the treatment. With portable apparatus, which can be placed in the patient's home, this objection is overcome. If I take any credit to myself it is for simplifying and cheapening the machinery so as to make this possible. As a matter of course, pneumatic measures have their indications and counter-indications, as atropine, morphine, bromides, and drugs in general have theirs. No one uses atropine to produce bromide effects. Air has its definite field of use, just as atropine and bromide have theirs.

Nobody uses compressed air in acute tuberculosis. This was long ago laid down as a counter-indication by Waldenburg and others. It is not to be used in certain diseases of the heart, or in cases with large cavities with extensive septic processes. Between cases with acute processes and the stage of extensive excavation, as well as in the very early stages of so-called incipient phthisis, lies an extensive field for

the employment of mechanical measures. They are used not as exclusive measures or panaceas, but to produce certain definite and highly desirable effects that cannot be produced by any other agent; certainly not by drugs, whether creasote or iodoform, hypophosphites, or cod-liver oil, tuberculin, or cantharides. Especially with patients who would be benefited by mountain climate, but who cannot get away from home, will pneumatic treatment prove a valuable substitute. Some patients have even taken their machines to the mountains, because they dreaded to be deprived of the good effects. I repeat that the treatment works no miracle, but every patient has a right to the additional chance for life it may give him, and the physician who deprives him of that right is at least negligent. We will never save all the phthisis cases that can be saved until we get rid of the idea that "specific medication" is a possibility, and concentrate our attention on improving the patient's general and local vigor and nutrition.

DR. MAYS: I think that the principal reason why the pneumatic cabinet has fallen into disuse is because it cannot be used in private offices. In hospitals it can be used and is used.

In regard to the use of compressed air I would say that I made no reference to acute diseases when I cautioned against its indiscriminate employment; but thought of subacute or chronic pulmonary affections. I have in mind now a case of catarrhal phthisis of about eighteen months' standing, which I am quite sure became aggravated after the third inhalation of compressed air. She became worse in every respect, and died about two months later. I have knowledge of other cases who were served somewhat in the same way, and I seriously think that great care should be exercised until we know its influence on each case.

I certainly think that Dr. Cohen must be mistaken when he says that the effects of compressed air are the same as those of the rarefied air of mountains. Not to my recollection have I seen any one else express this view.

ABORTION AT FIVE WEEKS, WITH SUBSEQUENT EXAMINATION OF THE EMBRYO.¹

was the title of a paper read by T. RIDGWAY BARKER, M.D.

DR. A. E. ROUSSEL read a paper entitled

ON THE ANTI-MALARIAL PROPERTIES OF PAMBOTANO (CALLIANDRA HOUSTONI).²

DISCUSSION.

DR. JAMES COLLINS: In our reports on malaria we are apt to lose sight of the fact that we have two distinct kinds of malaria, one the malaria of swamps and the other the malaria of great cities. This drug seems to have been used principally in the malaria of cities, and the results seem analogous to those of a remedy which we have in our own country, the eupatorium perfoliatum. The paper read to-night is so much like a paper I heard read some fifteen or twenty years ago, on the drug mentioned, that I could not refrain from mentioning it.

DR. THOMAS J. MAYS: This drug is entirely new to me, but it seems that it does not act like quinine. From the reports which we have presented to us here it appears that at least a part of its action is confined to the gastro-intestinal canal, stimulating the biliary

¹ See page 533.

² See page 529.

secretion, etc. We know of many agents which antagonize malaria by acting in this way. Chloride of ammonium, calomel, hydrastis canadensis are given, and have an excellent influence on malaria, and I think chiefly because they act upon the liver. Quinine is a remedy which stands by itself, and I was in hopes that in this agent we would find a prominent rival to it, but it seems not. I trust that Dr. Roussel will continue his researches into the remedy which seems to hold out such promising results.

DR. ROUSSEL: In reply to Dr. Collins, I would state that while my observations were made on malaria as it occurs in large cities, the studies of the foreign observers, especially those in Mexico and Italy, were on the so-called "swamp fever" of a rather intense type.

The Polyclinic.

IN a very severe case of chorea with marked paresis of the left arm, and total loss of speech in a boy seven years old, the hydrobromate of hyoscine was prescribed, and gave some relief, though not much. This was continued for two weeks. There being but little improvement, antipyrine was substituted in doses of 2 grains every four hours. Improvement began at once; and in about ten days the movements had ceased. The paresis and disability of speech remained, but after two weeks' use of the syrup of hypophosphites, the child had recovered completely.

—*Waugh.*

PHILADELPHIA HOSPITAL.

EXPLORATORY LAPAROTOMY.

By JOHN B. DEEVER, M.D.

Reported by A. HUNTER, M.D.

THIS case I was asked to see two days since. I found the man with his abdomen greatly distended, with an area of flatness or dullness upon percussion in the right iliac region. The case presented the following history:

Last summer he was struck in the right iliac region by the crank of a coal wagon. Since, he has had increasing pain, compelling him to stop work four months ago. Several times he has had stools of a bloody nature, and at one time of black color. The urine has been normal, and the bowels usually loose. He had severe chills and night-sweats before admission to the hospital. Appetite has been good, but pain would stop him from eating.

Therefore, we have a history of an inflammatory trouble, one which had its starting point in the right iliac region, and the result of an accident, but not until a year after the accident has the patient been admitted into the hospital for investigation. Now, the very fact that it has been consequent upon an injury, showing after the lapse of a year, is suggestive of a neoplasm, of a growth that has resulted from the inflammation set up by the blow, and you know that the variety of growth spoken of as sarcoma, often, and in fact in the majority of cases, has such an origin as this. This case also suggests the idea of an inflammatory trouble existing around the head of the large bowel. Whether it is an inflammation of the connective tissue between the two layers of the mesocolon, constituting perityphilitis; whether it is an inflammation of the serous coat of the large bowel, extending by continuity and resulting in a general peritonitis,

the local condition itself being known as a typhlitis, or whether this inflammation is one that has attacked originally the vermiform appendix, it is not possible to say definitely. We bring him before you to examine under an anæsthetic, when we will determine whether or not we have sufficient grounds upon which to make an exploratory incision. There is a number of cases of appendicitis where there is no question about operative interference, but it does not necessarily follow that every case that suggests itself as appendicitis requires laparotomy. I have no doubt that many cases which formerly terminated fatally, would have gotten well had they been operated on, but it does not follow, because we have appendicitis, that it is a case for operation. It depends on the pathological condition which is present.

The simplest form of appendicitis, that from which many of us have no doubt suffered, unconsciously, is a catarrhal inflammation of the canal of the appendix. These tend to recover spontaneously and, where they are of sufficient import to require a physician, rest and counter-irritation generally suffice to bring about a favorable result. We have, however, other cases that do not tend to recover so rapidly, and particularly ulcerative appendicitis, which most commonly results from a foreign body in the appendix, and it may be a grape-stone or fecal concretion which, by its presence sets up irritation, ulceration, inflammation, and finally an opening or communication between the canal of the appendix and the part of the peritoneum in proximity thereto. That being accomplished, fecal matter or bacteria set up circumscribed peritonitis, which goes on to formation of an abscess. Therefore we have an abscess formed around the appendix, within the peritoneum, shut off from the general peritoneal cavity, which collection of pus bathes the vermiform appendix, and yet when the appendix has been removed, sometimes it has shown no ulceration. In such cases the intensity of the inflammation has been so great that an abscess has formed before there has been established a communication between the peritoneum and appendix.

In this case, as special points, we have pain, swelling, prominence of the part affected, increased resistance which is elicited by palpation, and the presence of œdema, which is suggestive of deep seated obstruction; suggestive of interference between the superficial and the deep set of vessels. In addition, if the case has advanced to any extent, we have the presence of a mass which is detectable through the abdominal walls, and may also be detectable by examination per rectum.

We have been able to feel, in this man's case, the presence of decided resistance in the right iliac region, and we have also been able to detect a little superficial œdema. We have also determined that the most tender point in the abdomen is in this region. Upon inspection, we see the abdomen abnormally prominent, but the prominence seems to be uniform. Whether the mass I feel is purely inflammatory, whether it is one of recent formation, or whether it is traceable to this accident and the consequent peritonitis, or whether it is a mere coincidence, I am not able to say definitely. The tumor extends from a point above the level of the umbilicus to Poupart's ligament, and conveys, by my sense of touch, the idea of a sarcoma, rather than of the other conditions alluded to. Before operating, I will make an examination of his rectum, and if I can bring my finger in contact with the mass, I will be better able to say whether it is inflammatory, of recent origin, and likely to contain pus. Rectal examination is negative.

It being important to find out what is the condition; whether there is pus, endangering life by its evacuation into the peritoneal cavity, I feel we are justified in making an exploratory incision, not to the extent of opening the peritoneum; but, for the purpose of further examination, to bring the mass under the eye, and after we have exposed it, when there is no longer any danger of the introduction of an exploring needle, introducing such to see whether it contains pus.

Having then determined to explore, what is the best incision? Should we make an incision in the line of the linea semilunaris, the point selected for removal of the appendix, or should it be parallel to and above Poupart's ligament, so as not to endanger the peritoneum? In case I found the mass to be of pus, of course the operation for removal is called for. I do not believe, however, that the mass is purely inflammatory.

On opening the abdomen by incision parallel to Poupart's ligament, the mass was found to be sarcomatous, so that the incision proved to be only exploratory, and was immediately closed.

TREATMENT OF PNEUMONIA.

NITRITE of amyl was what was relied on principally. The rational signs, rather than the physical signs led to that course of treatment. The patient was pretty well cyanosed; skin had a livid hue, lips pale, and respiration very much hurried; pulse weak and rapid. Nitrite of amyl was given to reduce arterial tension throughout the body, and especially at the periphery, to relieve the load upon the right heart as far as possible. Nitrites reduce blood pressure in the lung, and still more, dilate the systemic capillaries and arterioles, and reduce systemic blood pressure, so that I would urge the importance of treating acute pneumonia with embarrassment of the circulation, with nitrite of amyl, or other nitrites. B. W. Richardson is the one to whom we owe the introduction of nitrites into medicine; he has introduced pretty much everything else that has been of value. No publication can compare with his quarterly *Asclepiad*. The formula which he advises for the use of nitrite of amyl is:

Nitrite of amyl	Mij.
Glycerine	3ss.
Alcohol	3ss.

Let the patient swallow this rather slowly, so that there is some effect by inhalation, as well as from the stomach. Part is immediately absorbed from the pharynx and respiratory passages, and part going into the stomach, is absorbed very soon afterward. With that we combined ammonium. The ammonium treatment is also Richardson's. It is announced as something new, but it is his. To keep the blood fluid as far as possible, was the theory upon which the ammonium treatment was introduced. In pneumonia especially does death take place from clotting of blood. Heart failure, to which death in pneumonia is often attributed, is a consequence of the clot and not the cause of it. It is an ante-mortem and not a post-mortem clot; and by keeping the blood fluid with ammonium we are able to prevent it. The stimulant action of ammonium on the heart is also of value, but its great value is in preventing fibrinosis, which is the chief cause of death in cases of this kind. We gave gr. v of ammonium carbonate with the above prescription. Strychnine gr. $\frac{1}{4}$ three times daily, and quinine sulph. gr. v night and morning were given. The bowels were kept open with

calomel and soda. Right side of chest was counter-irritated with croton oil, iodine and ether, afterwards keeping on a cotton jacket. In temporary indication of approaching moribund condition, inhalations of oxygen gas were used, and tided over the difficulty. Spirits of nitrous ether and ammonium acetate were used when the urinary secretion seemed to be deficient. These are all symptomatic. The curative treatment (I use the word in a limited sense; we do not cure anything, but simply keep the patient alive until the disease has run its course, and nature cures him) was amyl nitrite, ammonium carbonate, and strychnine sulph. The other remedies were simply symptomatic, all, however, in the same general direction; caffeine was substituted for strychnine; atropine, gr. $\frac{1}{60}$, was given at night for sudden effect as a respiratory and cardiac stimulant; hot coffee and whiskey were given. Convalescence has been conducted on general principles.—*S. Solis-Cohen*.

A NEW METHOD OF PERFORMING CIRCULAR ENTORORRHAPHY.—The *Lancet* describes a series of experiments upon dogs made to determine the best method of uniting a divided intestine end to end. The idea being to extend the principles involved in Senn's operation of lateral apposition with decalcified bone plates to a direct and continuous union of the severed bowel.

The operation is now performed in the following manner:

The bowel being ready to receive the tube, its full length is introduced into the proximal end, the cut margin of which is sewn to the tube through the perforations with a fine continuous, chromic gut suture. For this purpose a sewing needle is used, which, in passing, is made to dip more deeply into the mucous than the peritoneal coat. It is not sufficient to take the muscular and mucous coats only, as the attachment to the tube is then not sufficiently secure. When sewing the mesenteric border of the bowel to the tube, care should be taken to pick up the severed edges of the mesentery with the point of the needle, as this is the part most likely to give way, and the mesentery should not be allowed to drag in the least degree from the cut edge of the bowel. Next the needle of the traction thread is slipped along a director about three inches down the distal segment of the bowel and pushed through its wall. Then the distal is sewn to the proximal end by a chromic gut suture all round, the needle piercing the musculo serous coats only, great care again being taken to fix the mesenteric edge securely. With the same thread the opening in the mesentery can be drawn together. Now an assistant takes the traction threads, and steadily resists the operator as he draws the distal end of the bowel back over the tube, thus invaginating the proximal end. The parts are retained in position by a few Lembert sutures, one on either side of the mesentery, and others as they appear necessary. Lastly, the traction thread is pulled tight, and cut off short, the small opening caused by it requiring no further attention, and the operation is completed by cleansing the intestine and closing the abdomen in the usual way. The special part of the operation may be said to involve three stages:

1. To introduce the bone tube into the upper or proximal end of the bowel, and sew it there.
2. To pass the traction thread, and attach the distal and proximal ends together.
3. To produce the invagination, retain it in position by a few Lembert sutures, and cut off the traction thread.

The Times and Register

A Weekly Journal of Medicine and Surgery.

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PHENOMENAL HIGH TEMPERATURE.

IN the *Memphis Medical Monthly* Dr. Jones reports a case of high temperature out of the usual course. The patient, a girl aged fourteen years, had just recovered from tonsillitis, when she began developing momentarily temperatures of fabulous altitude. Thermometers of the ordinary type proved insufficient; and when one was procured that registered up to 150°, after a few trials this figure was reached, and the thermometer burst. The rise of temperature occurred at any hour of the day; it lasted but a short time, and was not accompanied by any alarming symptoms. She spoke of numbness varying in degree with the height of the fever. The extremities became cold, the skin covered with clammy sweat; severe nausea; malaise; the pulse never above 120; a sense of oppression on the chest. These symptoms passed off with the fever, leaving the girl pallid, but with good strength, and no appearance of serious illness. She had the power of dilating or contracting her pupils at will. Her respiration was but little quickened. Urine normal. No recent malaria. Spleen and liver normal. The girl is an athlete or contortionist; excelling in running, jumping, etc.; and can place her feet behind her head, and get in other incongruous shapes. Eight thermometers have been broken while endeavoring to measure her temperature, in both axillæ, the rectum, and the mouth; the break occurring in the bulb or the stem. The rise is not indicated by flushing, but by blueness of the lips, and a pinched and changed expression of the face. An avitreous thermometer registered 115°, and at another time a spirit thermometer reached 111°.

This is not an isolated case; and the journal above-named quotes several other instances of marvellously high temperature. Donkin in the case of a nurse convalescing from typhoid fever, took a reading of 111.6°. Leale had a young lady with broken ribs

and tender vertebræ, who, in convalescence, raised the mercury above 122°. Moxon reported a case of phthisis in a young girl, who, at the same time, showed temperatures of 102° in one axilla, 114° in the other, and 107° in the mouth. Dr. Galbreath, of Omaha, reported a case, also a young girl, where the temperature reached 172°. Donkin reported eight cases.

All these above quoted have several characteristics in common.

1. All occurred in young women.
2. All, in which the history is given, occurred during convalescence; at least they began then.
3. There was a total lack of correspondence between the temperatures recorded and the general condition of the patient.
4. The phenomenally high temperatures were of very short duration; sometimes in two minutes afterwards the heat was sub-normal.
5. The height of the temperatures increased with "practice," and the phenomena continued as long as they rendered the patient an object of interest.

The explanation of these curious cases does not appear very difficult. Possibly the high temperatures may be due to pressure exerted on the delicate bulb of the thermometer. If not, we must admit that hysteria has acquired a new resource; and made one more step towards the verification of Ellerslie Wallace's statement; that "there is no symptom of any known disease, including death, that hysteria cannot simulate."

We regret exceedingly to note, in the discussion of this case by the Memphis Medical Society, a disposition to attribute to it an import not justified by the facts. It does not show that "our ideas concerning the dangers of high temperatures should be revised," or anything of the sort. The wise physician who has a case of sunstroke, with a temperature of 110°, will pack his man in ice and inject antipyretics hypodermically just the same, and will not let his patients die of hyperpyrexia because he cannot explain the why and wherefore of all the vagaries of a hysterical girl. The canons of medical law, the rules of good practice, are not to be set aside on the occurrence of an exceptional case that bears the impress of trickery so plainly as this. Go to! brethren, are not the ways of the hysterical female past all masculine comprehension?

HOMŒOPATHY AND LIFE INSURANCE.

IF ever there was a case of "monkeying with a buzz-saw," it occurred when the homœopaths undertook to make of life insurance a means of bolstering up their peculiar method of practice. First, we were informed loudly and with widespread publicity that life insurance companies discriminated in favor of persons who enjoyed the benefits of homœopathic medical advice, as their chances of longevity were thereby rendered superior to those of persons who persisted in entrusting their health to the regular practice. The few who took the trouble to inquire into the truth of this claim discovered that the only company that made this discrimination was the Homœopathic Life Insurance Company, gotten

up by the homœopathists themselves for the purpose of doing this very thing.

But, alas, that these little schemes of mice, men, and homœopathists, will persist in going wrong; because blind, stupid old Nature goes blundering along in her road, following the laws that have governed her from eternity, without any regard for the little by paths so cunningly devised to attract her steps. The Homœopathic Life Insurance Company proved a financial failure. Whether its predilection for homœopathic customers, or book-keeping conducted on strictly homœopathic principles, or something of the infinitesimal that crept into the receipts gave rise to the failure, we know not. The fact remains that the only company that discriminated in favor of persons enjoying homœopathic treatment failed.

Now, the homœopathic profession appears in a different guise; and the discussion at Atlantic City reveals a very interesting state of affairs. It seems that circular letters have been sent to the life insurance companies asking, *why they discriminate against homœopathy, by declining to employ homœopathists as medical examiners!* This reveals a very different state of things from that claimed a few years since; and it is of much interest to note the action taken by the companies in response to this communication. Many took no notice of it, declining to put themselves on record in a way that would cost them some popularity from one side or the other. Some replied that they made no discrimination; but trial showed that it was impossible for a homœopathist to convince the company of his fitness. One of these stated that its business was conducted on strictly business principles, without regard to schools or beliefs in medicine; and this might with great propriety have been the answer of every company. But some came out flatly and said that they had found the regular physicians better educated and in other ways more capable of fulfilling the duties of the position to the satisfaction of the companies. Altogether, our homœopathic friends cannot be said to have gotten much of an advertisement out of the relations of their school with the life insurance business.

OUR readers have doubtless been amused by the newspaper story concerning an alleged miracle in St. Louis, with which Dr. Alt's name was mentioned as vouching for the truth of the statements. Those who are familiar with the fertile imagination of the reportorial corps did not trouble themselves much about it, but as Dr. Alt thinks it worth while to make an explanation, in the *Am. Jour. of Ophthalmology*, we reproduce it:

"My answer to this—and I hope the gentlemen who so kindly spread the newspaper article will also spread my answer in the same manner—is, that it is a base fabrication of somebody's brain, who thought he was either doing me a particular good or a particular harm by it. The following are the facts:

"On April 4, last, I was called by a letter of the Mother Superior to see a Sister who was said to be suffering greatly. When I saw the patient I was told that she had on that day bled profusely from the left eye without provocation.

"I found a red upper eyelid, as if it had been rubbed, and a slight photophobia, but nothing else. I told the Mother that

I could not find anything for which my services might be of any use. According to the Sister's story, I presumed that she was afflicted with hæmophilia, as she was stated to have bled from different parts at slight provocation or without it.

"*This is all I know of the miracle case.* I saw the Sister only that once. I did not do anything for her. I had nothing to do with the subsequent alleged miracle, and could, therefore, not vouch for it, even if I believed it.

"I hope this statement will help to put the weary brains to rest, as far as I am concerned, in a matter as foreign to me as the man in the moon."

Letters to the Editor.

CASES OF HYDROPHOBIA.

ANSWERING your note of recent date regarding a case of Thomas Vandever (not Vanderberg), of Whiting, Kansas, will say that the histories of these cases are substantially as follows: About nine years ago the father of the Vandever boys owned some calves which were bitten by a rabid dog. The calves were afterwards attacked with hydrophobia, so-called, and four of the boys, John, Thomas, Jacob, and one other whose name I do not recall, handled the calves, trying to get them to suck. In doing so they got saliva on their hands from the mouths of the calves. At the time some of the boys remember that they had sores on their hands—such as farmer's boys often have in consequence of slight abrasions received in their work. After the calves died these same boys skinned them.

On Tuesday, June 2, 1891, the one whose name I have forgotten, aged seventeen years, was taken sick. From general malaise, nervousness, etc., he soon developed well pronounced symptoms of hydrophobia, restlessness, insomnia, difficult deglutition, spasms induced by drafts of cold air, or the contact of cold water, passing into profound spasms from which he died Saturday morning, June 6. Thomas, aged twenty-four, went to town for a coffin for the deceased brother, and upon his return, found the younger brother Jacob, aged fifteen, in a room, exhibiting fear and restlessness. Upon being asked to come out of the room he refused, saying that he was going to die just as his brother had. He grew gradually worse, and by next morning, Sunday, June 7, was in profound spasms. Dr. Riggs, of Muscotah, who brought Thomas to me, a gentleman well read and able professionally, and to this adding most excellent common sense, informs me that while the doctors were agreed before the death of the first boy that the case was one of hydrophobia, yet they did not so announce it to the family until Jacob, the youngest, was taken down. Soon after Jacob began to have spasms on Sunday, Thomas, aged twenty-four, began to manifest symptoms. He was "nervous," restless, had a pain in back of head and neck, was oppressed in his breathing—feeling, as he stated it, "like there was a heavy load on his chest." He also had one exacerbation of difficulty of deglutition, if I remember aright.

Dr. Riggs took him aboard train on Sunday afternoon, and started with the expectation at first, I believe, of taking him somewhere to have the Pasteur treatment applied, or rather the Pasteur preventive method, inoculation or vaccination. He was advised at Atchison, Kansas, by my friend, Dr. M. C. Farrar, to bring Thomas to me, and Dr. Farrar advised me by wire that they were coming. They should have reached me at 8 P. M. on Sunday evening, but the train being delayed they did not reach me until 3.30 A. M. Monday.

I found Thomas to be a man of medium size, blonde, rather florid, a fair sized head with quite a large forehead. He was profoundly depressed, had sighing respiration, and complained of "weight on his chest," and severe pain in back of head and neck. Dr. Riggs informed me that Thomas had announced Monday (that day) as his day to be attacked. After consulting with Dr. Riggs, and being perfectly agreed as to the measures to be pursued, I examined Thomas, and, after having done so, announced to him that there was no doubt about my being able to cure him. He was given an anodyne, and taken to hotel until morning, when he was removed to "All Saints" Hospital. There the measures agreed upon were applied, with instantaneous relief.

Suffice it to say that the treatment was purely psychological. The young man slept that day for two or three hours, for the first time for two or three days and nights, and awoke free from pain, from the oppressed breathing, and from all feelings of fear and apprehension. He left here for home, Tuesday evening, and expressed himself as feeling perfectly well. The younger boy, Jacob, died, and was buried on Tuesday.

WILLIS P. KING, M.D.

Kansas City, Mo.

CAN A COMPRESSED LUNG BE DILATED?

IS there any way to open out a collapsed and consolidated lung—one in which no *air* enters—that has probably been in this condition for several months? The other lung is, apparently, sound and all right. As I know of no way to test the *solid one*, I solicit any information you may have.

D. B. HOFFMANN, M.D.

HELIEX, CAL.

[It is exceedingly doubtful if a lung once blocked up by inflammatory exudations of this sort can ever be restored. But, we know that adventitious or newly-formed tissue does not possess the vitality of the normal structures of the body; and there is consequently room to hope that a course of mercury and iodine, the most powerful destructives, pushed to the utmost limit compatible with safety, might be of some service. As in syphilis, the object would be to find a dose that would be sufficient to break down the weaker abnormal tissues, and yet not large enough to affect the healthy structures; and this should be given persistently for a long time. In addition, the inhalation of compressed air might help to overcome the adhesions.—ED.]

WHY DID THEY BREAK?

SOME time since, during the progress of a case of typhoid fever, white-of-egg stirred in ice-water was ordered. A few days afterward, the nurse told me that she had broken three glasses whilst mixing the egg, and each time the same way. It seemed that when the egg was stirred in a glass of ice-cold water, containing also pieces of ice, the glass instantly cracked. Each time the line of fracture was the same—an ellipsoidal line at the bottom, half of the figure through the bowl of the glass and half through the bottom. However, when she broke the egg into a glass that contained ice-water only, without the pieces of ice, the accident did not happen. The glasses that broke were very thin ones, and when heavier glasses were substituted, no such occurrence took place. Nevertheless, the phenomenon seemed to me worthy of note.

ERNEST B. SANGREE, M.D.

742 SOUTH FIFTEENTH STREET.

CALCULUS IN URETHRA.

I ENCLOSE you a calculus taken from the urethra of a man, about thirty years of age. He had a severe attack of renal colic about a week previous to the date of removing this. He came into my office complaining of being unable to pass urine. On examination I discovered this stone about one-half inch within the meatus. He is a farmer, and he quit work for only one-half day. There has been no evil effect noticeable from the operation, although the stone was wedged tightly within the urethra.

J. G. PACE.

Elwood, Nebraska.

Book Notices.

MADemoiselle GIRAUD: MY WIFE. Translated from the French of ADOLPHE BELOT. 8vo. pp. 395. Chicago: Laird & Lee, Publishers, 1891.

This is a remarkable book, and it is destined to have a wide sale here as it has had abroad. The author is well-known as a writer of more than usual vivacity, and this is well up to his standard. It deals with a peculiarly interesting phenomenon in the relations of husband and wife, and cannot fail to be of much interest to the profession, as well as to readers in literary circles. With perfect delicacy of expression it treats of a subject not generally discussed in novels, yet it might with propriety lie on the library table, so far as any harm to the family is concerned. As a specimen of book making, it is very elegant in all details, and the illustrations are especially to be commended as works of art.

W. R. D. B.

ADDRESSES AND ESSAYS. By G. FRANK LYDSTON, M.D., Fellow of the Chicago Academy of Medicine and of the Southern Surgical and Gynecological Association: The Evolution of the Local Venereal Disease; Tropho-neurosis as a factor in the phenomena of syphilis; The rationale of Extension in Diseases of the Spinal Cord; Aberrant Sexual Differentiation; Gonorrhœa in Women; A Plea for Early Operation in Acute Peritonitis; Materialism vs. Sentiment in the Study of Crime.

The Review of Insanity and Nervous Disease appears, as a quarterly compendium of the current literature of neurology and psychiatry. It is edited by James H. McBride, M.D., Milwaukee, with associates L. C. Gray, C. E. Riggs, C. K. Mills, W. A. Jones, and H. M. Bannister. The subscription price is \$2.00 per annum.

EMPHYEMA.—Isch-Wall lays down the following rules for operating in empyema. The most favorable intercostal space is chosen; the presence of œdema aiding the choice. If there is no exterior sign, the sixth, seventh, or eighth space should be opened, the incision being carried back, to insure the evacuation of the pus. The skin is washed, rendered antiseptic, and cocainized, with a 2½ per cent. solution in saturated boric acid water. The incision is made with the thermo-cautery at a low heat, to prevent bleeding and resorption of pus from the wounded surface. The intercostal muscles are divided on a grooved director, or by the cautery. The pleura may be torn through by the finger. A drainage-tube is introduced, and the cavity washed out antiseptically.

The Medical Digest.

IODOFORM FOR BURNS.—Rottenberg has employed iodoform in vaseline for over one hundred cases of burns, of all degrees, produced by melted iron. The results were excellent. Pain disappeared rapidly, even the most violent; the cure progressed rapidly; no deforming cicatrices resulted, and suppuration was very rare. The dressing was renewed daily. Blisters were first opened.

Dressings of cotton soaked with 10 per cent. salolized vaseline are said to give equally good results, and the odor of iodoform is avoided.

GASTRIC AFFECTIONS.—For these Winternitz recommends cold compresses to the gastric region, covered with impermeable stuffs. This application causes a stimulation of the functions, secretory, digestive, and motory, of the stomach. If reaction does not occur, a rubber-tube is coiled upon the compress, in which circulates water heated to 40° C. This is recommended in dyspepsias, gastralgias, organic affections, ulcers, catarrhs, and dilatations. No such results can be obtained from hot poultices. Cold sinapisms are recommended, however, as often serviceable in like cases.—*Revue de Thér.*

PAROXYSMAL SIALORRHOEA IN GENERAL PARALYSIS.—The patient, a man aged sixty-nine years, showed symptoms of general paralysis during the last two years: such as inequality of the pupils, hemiparesis, double ptosis, intellectual feebleness, etc. In December, 1889, he had a brusque crisis of sialorrhœa, preceding by some minutes, an epileptiform attack limited to the right arm and the right side of the face. Since this time he has had a dozen similar attack. The sialorrhœa appears to originate from an irritation of the cortical regions near those that have on each occasion determined the explosion of epilepsy.

—*Revue Med. Chir.*

ACTION OF DOG SERUM UPON HUMAN BLOOD.—In *La France Médicale*, Luzet describes a series of experiments made by him upon this question. He found that serum acts upon the morphological constituents of the blood by precipitating the hemato-blasts, and by preventing coagulation; or, at least, rendering it incomplete. When dog-serum acted upon human blood, or human-serum upon dog's blood, there occurred these globular alterations more or less pronounced, and very solid blood concretions, which, theoretically, could become the causes of emboli. This investigation is of importance in view of the recommendation of dog-serum as a remedy for tuberculosis.

In the *Lancet*, June 6, Caiger gives an analysis of 1,008 cases of scarlet fever admitted into the South-western Fever Hospital, London, during the year 1890. The largest number of cases was admitted in October. As regards age the greater number of the patients were between five and ten years. The proportion of sexes being nearly equal. The death rate was 4.67. The complications were otitis in 12.9 per cent. of cases; adenitis in 7.1 per cent.; rhinitis in 6 per cent.; eczema in 3.3 per cent.; albuminuria (simple) in 3.1 per cent.; ulcerative stomatitis in 2.8 per cent.; nephritis in 2.7 per cent.; rheumatism in 2.7 per cent.; bronchitis in 2.08 per cent.; conjunctivitis in 1.35 per cent., and tonsillitis (secondary) in 1.24 per cent.

INJECTIONS OF THE SERUM OF ANIMALS FOR TUBERCULOSIS.—Richet gives the results of a new series of experiments, as follows:

When the tuberculosis is very virulent, the injection of blood from the dog, or from the rabbit, retards the evolution without arresting it.

When the tuberculosis is moderately virulent, the injection arrests the evolution of the tuberculosis.

The active principles are contained in the serum, and a very small dose suffices to produce immunity; half a cubic centimeter of serum for a kilogram of rabbit.

The blood or the serum of tuberculized dogs is more efficacious than of healthy dogs.

The action of tuberculous hemocyste, given in too strong dose, and after the tubercular inoculation accelerates the progress of the tuberculosis.

The action of normal hemocyste is inefficacious when the injection is made after a tubercular inoculation.

Finally, the prophylactic action of hemocyste, and notably of tubercular hemocyste, appears more powerful than its therapeutic action, and can be essayed to-day directly upon man.—*Revue de Thér.*

THE CARDIAC MEDICAMENTS.—Germain Sée presented a communication to the Academy of Medicine upon distention or dilatation of the heart, and the modification of the heart under the influence of cardiac medicaments. As the result of careful measurements, he reached the following conclusions:

1. Spartein is that which diminishes most, and most quickly, the dimensions of the heart; which best fortifies the cardiac muscle in augmenting its tonicity. Warscheff, Terrenini, and Rummo arrived at the same results; and, like Sée, noted the absence of diuresis.

2. Digitaline equally lessens the volume of the heart, but acts specially on the right side, and only when these cavities are dilated.

3. Iodide of potassium also lessens the volume of the heart, but this effect is less pronounced than that of spartein.

4. Antipyrine augments the total volume, without influencing the arterial pressure.

5. Bromide of potassium resembles antipyrine, and opposes the iodide; it dilates the heart in its totality, perhaps more on the right side.

The other medicaments exercise no action on the heart; especially caffeine, which does not affect the cardiac muscle.—*Bull. de l'Acad. de Méd.*

CARBON-MONOXIDE OF NICKEL.—1. Ni(CO)₄ is a powerful poison when injected subcutaneously.

2. The vapor of Ni(CO)₄ in air, even to the extent of less than 0.5 per cent., is dangerous.

3. The symptoms are those of a respiratory poison, and are similar to those caused by carbonic oxide.

4. The spectrum of the blood of an animal poisoned by Ni(CO)₄ is that of carbonic oxide hæmoglobin, and it is not reduced by sulphide of ammonium.

5. When the substance is injected subcutaneously, it is probably in part dissociated in the tissues, as there is evidence of the existence of nickel in these tissues; but the nickel also finds its way into the blood and is found there.

6. The substance produces a remarkably prolonged fall of temperature even when given in small quantities. This may be accounted for by the hæmoglobin being prevented to a large extent from supplying the tissues with oxygen. Nico, as we may for convenience term this substance, makes it

possible to give graduated doses of carbonic oxide, and thus reduce temperature by directly interfering with the respiratory exchanges occurring in the tissues. The objections to its use as an antipyretic are that, owing to its poisonous properties, it is difficult to inject it subcutaneously in sufficiently small doses, while it is not easy to obtain a solution in any menstruum in which decomposition will not take place. If a convenient method of dissolving it could be devised, $\text{Ni}(\text{CO})_4$ might become a valuable antipyretic, the *modus operandi* of which is intelligible. We are at present experimenting in this direction.

—*Brit. Med. Jour.*

VAGINITIS WITH GAS CYSTS.—A nullipara, aged twenty-eight, married nine years, consulted me on June 30, 1890. About six months previously I had dilated the cervix for dysmenorrhœa. The vagina at that time was healthy. She now complained that for three weeks she had been in constant pain, more or less severe, and had had a slight pink discharge. She had not been aware of any discharge before this. On examination there was found a tender swelling to the right of the uterus. The vagina felt uneven, as if studded with hard nodules. These nodules were closest together on the posterior wall of the vagina and in its upper half. On looking at them with the speculum they were seen to be grayish-black, tense vesicles, in size from that of a hempseed to that of a pea. Each vesicle when pricked collapsed with a distinctly audible pop, no fluid coming out. I poured water into the speculum, and then pricked one of the bladders, and a little bubble of gas rose through the water. I pricked and emptied all the vesicles I could see. There were none on the cervix uteri. The patient was examined subsequently on July 7, 18, and 24, but no more bladders made their appearance. The discharge soon ceased; the patient was not precise enough in her statements to enable me to say exactly how long it lasted. Careful inquiry was made of her husband as to his state of health, and he denied having had any discharge or other recent disease of his genital organs. The painful lump to the right of the uterus disappeared in two or three weeks.—Herman, in *The Lancet*.

ARTERIAL TENSION IN EARLY PHTHISIS.—Marfan's researches were made by the aid of Potain's sphygmomanometer, as modified by Basch. In all the consumptives examined the arterial pressure had descended from the normal standing, 17 to 18 centimeters of mercury, to 10 to 15 centimeters. This phenomenon has been observed with apyretic as well as with febrile cases, showing that the fever is not the cause of this lowering of arterial pressure. One phthical case, whose temperature was 98.6° , presented with regularity a pressure of $11\frac{1}{2}$ centimeters. The same observation holds good with cases where no treatment is, or has been, in operation. The tension is quite uniform with each individual, and the only factors influencing it are a lively fever, and the terminal cachexia of phthisis.

To relieve this tension, Marfan has found caffeine useless; digitalis a little more active.

Out of one hundred cases, he found only three with whom the tension was normal; and these were older persons, with manifest arterio-sclerosis.

This lowering of arterial tension is not alone a constant symptom in phthical cases, but is a precocious symptom, observable at the début of the malady.

The explanation given to this phenomenon attributes it to the action of toxins secreted by the bacilli.

But it is also possible that the low pressure precedes infection, and constitutes a predisposition; and this should be verified; especially as smallness and insufficiency of the heart was once thought to be one of the conditions predisposing to phthisis.

—*Revue de Thér.*

EARLY STAGE OF SPINAL DISEASE IN CHILDREN.—In a post graduate lecture at the Hospital for Sick Children, Edward Owen said that after all, stiffness was the most important sign of early spinal disease. Two boys of about the same age were placed side by side upon the floor; one of them had dorsi lumbar disease, whilst the other had a sound spine. The latter could put his head between his knees, his back assuming a beautiful, convex sweep. The other boy could not bend down at all. Two children were then brought in whose projecting spinous processes offered strong suggestions of vertebral caries. Their backbones could, however, be freely bent and turned in every direction, and were manifestly destitute of inflammatory trouble. Their mothers said, moreover, that they had not complained of pains, and that they could run about and play with other children without showing unusual fatigue.

As regarded the treatment of the early stages of spinal disease, Mr. Owen summed up his advice in one word, REST—absolute and continuous rest. The child should be placed on a narrow horse-hair mattress with the head securely steadied between very large sand bags, only a small, flat cushion or pillow being allowed beneath the nape of the neck. When the pains had become a matter of almost "ancient history;" when it was certain that no abscess was forming, and when, with the lapse of many months, it might be considered that all tubercular inflammation—and these cases are always tubercular—had passed away, some kind of rigid support might be employed. To substitute a plaster of Paris or a poroplastic splint, however, for absolute rest in the horizontal posture, was one of the commonest errors of the present time in connection with the treatment of early spinal disease.—*Med. Press.*

CHOLECYSTOTOMY.—K. E., aged twenty-eight, German, admitted to the hospital January 24, 1891; patient had been ailing for over a year, and had suffered from repeated attacks of hepatic colic and vomiting. At the time of admission she appeared very much emaciated and jaundiced, the whole body being of a deep yellow color. She complained of pain in the epigastric and right hypochondriac regions. Examination revealed an enlarged gall-bladder, distended with calculi. On the 31st of January cholecystotomy was performed. A vertical incision was made over the fundus of the gall-bladder, the skin and muscles were divided in the ordinary way, the peritoneum opened, and the viscus brought into view. The abdominal wound was then closed, suturing the walls of the gall-bladder to the abdominal parietes, leaving a small portion of the fundus protruding through the center of the abdominal incision. The protruding portion was then incised to an extent sufficient to admit the forefinger, sponges being placed to absorb any fluid that escaped. Through the opening thus made, thirty-five calculi of various sizes were removed. The bladder was then thoroughly irrigated, and a rubber drainage-tube introduced and left protruding through the fistulous opening. Since the operation forty-eight additional calculi have passed through the fistula. In all, ninety calculi have been removed. The patient for the first few days suffered

severely at times from vomiting, for which bismuth, soda and hydrocyanic acid were administered with marked benefit. Nourishing enemata were also resorted to. The temperature never rose above 101.3°F .

At the present time the patient is up and about, the appetite and digestion are good, the jaundice has entirely disappeared. The fistula will shortly be closed up, and the patient discharged.

—Morse, *Occidental Med. Times*.

PULMONARY SYPHILIS.—Let us first review the pathological evidence that supports the theory of syphilitic phthisis:

1. We often find in the lung a peculiar tumor known as "the gummy," small and yellowish in color, sticky to the feel, and sharply defined from the surrounding tissue. It is a recognized lesion of tertiary syphilis, and forms one of the most common deposits in the liver or kidneys, and is more prominent in the middle or lower lobes of the lungs than elsewhere. Similar deposits are almost always found in the liver, or traces of them.

2. In another class of cases we may have appearances that simulate those of miliary tuberculosis, but perhaps without the so-called tubercular bacilli.

3. In another class, which is presumably an advanced stage of the miliary formation, we have the peculiar fibroid induration already spoken of, and which is the most characteristic of the syphilitic lesions, and one whose clinical signs have a certain amount of positiveness about them. At first the indurated fibrous tissue has a pellucid bluish appearance, but later on is white and glistening.

4. If the miliary deposits aggregate and soften, as they will do in case treatment is not successful, cavities will form, and they will be found first in the apices, just as in tubercular phthisis. But the cavities are usually small, and if we are slipshod in our diagnosis, the case will pass for a fibroid phthisis (tuberculosis).

5. Associated with these intra-pulmonary changes will be an unusual amount of fibrous pleurisy, for this is a natural concomitant of pulmonary syphilis, and may, therefore, be expected. Pleuritic effusions are also comparatively frequent.

Now, while there are none of these lesions except the gummy tumor, that are positively determinable at the post-mortem table; still in conjunction with the patient's history, his physical signs and the microscopic examination of the sputum (or of lung tissue after death), the diagnosis may be made with a remarkable degree of certainty.

—Satterthwaite, *Boston M. and S. Jour.*

ABORTIVE TREATMENT OF PNEUMONIA.—The indications for treatment are exactly the same here that they are in an inflammation in any of the extremities. We must stop the engorgement and prevent the exudation; if that is impossible we must limit it to its lowest possible extent. We have, through the agency of some force the nature of which is not considered in this paper, a weakening or possibly a total suspension of vaso-motor control over the caliber of the small vessels in the lungs, and the result is congestion, then inflammation. This force must be met and overcome. We can strike directly at the cause and abort acute lobar pneumonia with as much certainty as we do the rigors of ague. If we can see the cause while the crepitant râle can be detected, in other words while the exudation is taking place, we *can* stop it right then and there by the administration of ergot.

Give me Squibb's fluid extract of ergot, an oiled silk jacket and a mustard plaster, and I will treat successfully and in most cases abort more pneumonias than can be saved by the entire balance of the materia medica. I do not offer this treatment as something new or novel. The action of ergot upon unstriated muscular fibre, has been well understood for years. It has been used to control hemorrhages in all parts of the body, where the bleeding was due to relaxation of the arterial tone, with the most gratifying success. It has been found invaluable in hemorrhages from the bowels, in fact it is the most universal and potent internal hæmostatic known, the happiest results being produced in hæmoptysis by the hypodermic injection even when due to purpura hemorrhagica. But, gratifying as these results have been, they cannot compare with the glorious results obtained by its timely and fearless administration in pneumonia. I mean by the term "fearless," a deliberate, conservative attempt to poison the patient with ergot. I have done this repeatedly, and long before the first symptom of ergotism appeared, the pneumonic inflammation has faded away like snow before the sun of June.—F. W. Epley, *N. W. Lancet*.

ARSENIC AS A DRUG.—There are certain forms of skin disease against which arsenic appears to possess specific power; for instance, pemphigus diutinus or persisting pemphigus and allied disease. In connection with the liberal administration of this drug I have had repeated opportunities of observing its effects upon the palms and soles. It makes these itch, burn and perspire. In the instance of the soles, the profuse perspiration has on several occasions caused the epidermis to peel. In the treatment of common psoriasis, although the effect of arsenic is quite as definite and certain as in pemphigus, it is not nearly so immediately curative. In the large majority of cases it will in the end, if well pushed, cause the eruption to disappear, the patches sometimes becoming congested and irritable. It seldom, however, brings about a complete cure. I believe that both its efficiency and its safety are in ratio with the youth of the patient. My experience as regards the effect of arsenic in lichen planus has not been uniform; some cases improving, and others doing better under tartar emetic. In regard to the value of arsenic in eruptions of the eczematous type, my impression is that if given in anything like full doses it usually makes the eruption worse. In cases of common acne, sycosis (non-parasitic), and various other chronic affections of the skin, I often add small doses of arsenic to the other remedies used. Arsenic is supposed to brighten the complexion, make the skin more transparent, and give glossiness to the hair. If it really effects this, which I have doubt, it does so only when used sparingly. The effect of the drug as a direct tonic I think is due to and depends on the smallness of the dose. In elderly persons, unless the disease imperatively demands it, I never prescribe this drug. Very few persons have an idiosyncrasy for arsenic, and the young bear full doses well. Arsenic is an undoubted cause of peripheral neuritis, and it is noted by Christison that local and unsymmetrical forms of paralysis are caused by its continued use. During its medicinal use numbness and tinglings are frequently observed. Herpes zoster is also sometimes caused by arsenic. Neilsen, of Copenhagen, found that in 520 cases of psoriasis in which arsenic was prescribed 18 cases had herpes. As to the effect of arsenic on the general health when administered during long periods, my impression is that when given in small doses its effects are inap-

preciable, and there is no danger of a cumulative influence. The toxic symptoms of arsenic when given medicinally are numbness, and tingling of the palms and soles, loss of flesh, irritation of the conjunctiva, diarrhoea and gastric symptoms, and sometimes extreme irritation of the bladder.

A number of cases have been noted where arsenic has caused death, when used in large doses for long periods of time, with paraplegic symptoms. The effect of arsenic upon the skin in persons previously in health are that (supposing the doses to be large) the skin becomes dry, harsh, brown and muddy looking, though there may be perspiration on the palms and soles. In extreme cases scaly patches may form, and in some parts, in addition to dryness, corns may form, very rarely degenerating into epithelial cancer. Arsenic will also cure recurrent herpes. Whilst I think that our clinical knowledge of this powerful and most important drug has much advanced during the last twenty-five years, we cannot claim to have made any discovery as to its mode of action. We know that it will cure some diseases, and cause others; that it has some peculiar affinity for nerve tissue, and some peculiar influence upon nerve function, but further than this we cannot go. Recent observations leave us the creed that while we may, as heretofore, avail ourselves freely of its services we must closely watch its effect, and be prepared, if need be, to forbid its use.—Hutchinson, *British Med. Jour.*

PHARYNGEAL DISEASE CAUSED BY THE PNEUMOCOCCUS.—Rendu describes two cases of angina due to the pneumococcus. In both the onset was abrupt; the fever very acute and out of proportion to the local lesions, that consisted of an injection of the soft palate and pharynx, redness of tonsils, without swelling, cedema or exudation. Deglutition was not very painful, and the submaxillary glands were not enlarged. One case was a nurse who slept in a room where, for eight days, three servant girls had been successively seized with pneumonia. A little of her saliva was injected into a mouse, that died in eighteen hours. The blood and viscera of the animal contained pneumococci, that developed upon agar-agar, in very characteristic colonies. In the other case the evolution of the disease was more benign; at the end of thirty-six hours the fever fell by a sudden crisis, as in ordinary pneumonia. It is true that saliva may contain the pneumococci normally, but cultures made with it are much less virulent than those following in these cases. And the development of diffuse septicemia in the mouse in eighteen hours is in accord with what occurs where the pneumococci of ordinary pneumonia are injected.

We may now admit that all the acute anginas are of microbic origin; and this clinical group should be studied from the new standpoint.

Netter added to these observations a note upon the pharyngeal localizations of the pneumococcic infections. He distinguishes four forms: Suppurative amygdalitis, pseudo-membranous angina, follicular angina, and simple and herpetic angina.

—*Revue de Thér.*

MANAGEMENT OF CHILDREN.—A child was brought to me to-day (June 7), from a neighboring village, for the purpose of having a cherry seed extracted from its nostril. Two physicians made attempts to remove it yesterday, but, owing to the cries and struggles of the child, failed to get it out, and thought an anæsthetic would be absolutely necessary. The

following were the manoeuvres I employed, which will serve to give my brethren some valuable, practical hints in the management of children.

When the child was brought in, I told the parents to let it become accustomed to the surroundings, and for this purpose I did not attempt anything for an hour. Then I seated myself before the child and commenced talking to it—gave it a nasal speculum to look at, in its *own hands* (a child never enjoys seeing anything without handling it). I then called its father to me and introduced the speculum into his nose. Fortunately there was another little child of about the same age (eighteen months), which, having no cause to be suspicious of any ulterior designs, readily submitted to an instrumental examination of its nostrils. By this time the little patient's mind was entirely disabused of the idea of being hurt, and readily consented to have its nostrils examined, which, with great deliberation, I proceeded to do. Examining the well one first, I then put a drop of solution of cocaine in the other nostril, seized the seed with a pair of lion-tooth forceps and removed it without pain, fright, or a single tear—the little one smiling complacently at the seed held in the forceps.—*Country Doctor.*

VAGINAL OPERATION FOR EXTRA-UTERINE PREGNANCY.—*Conclusions.* 1. In case where the foetal cavity is still aseptic, the vaginal operation exposes the patient to danger of sepsis in the foetal sac, which cannot be guarded against. Abdominal section gives far better means of protection against septic infection.

2. Hemorrhage from the placenta cannot be controlled by the vaginal operation. By abdominal section, on the other hand, ligation of the internal spermatic and uterine arteries, as devised by Olshausen, can be accomplished as a means of checking hemorrhage from the site of a removed placenta in the territory supplied by these vessels. Abdominal section further permits of ligature *en masse* of the bleeding portions when the placenta has been divided at the place of incision.

3. Delivery of the child at full term is usually difficult, and thus dangerous to the mother, by the vaginal operation, but easy by the abdominal operation.

4. If the fate of the child is to be considered, the vaginal operation must be abandoned and replaced by abdominal section.

5. When suppuration has set in in an extra-uterine pregnancy presenting low down in the small pelvis, and the placental circulation has ceased, the vaginal operation may be considered in comparison with the abdominal operation.

6. The vaginal operation is strongly indicated in old suppurating foetal sacs, with disintegrated foetus presenting in the vagina.

Final Remarks.—The vaginal operation is condemned by a number of modern authors, among whom may be mentioned Werth, Olshausen, Lawson Tait, Thornton, and others. At the Gynæcological Congress at Freiburg in June, 1889, Olshausen condemned the vaginal operation as well as drainage into the vagina after laparotomy in such cases.

As an advocate of the vaginal operation Landau stands isolated. He stated that he had performed thirteen vaginal operations and lost only one mother. As his cases have not been published in detail, this material is not available for consideration here, and can have no influence on the conclusions above stated.—Fenger, in *St. Louis Med. Jour.*

DIGITALIS IN INFANTILE PNEUMONIA.—Murphy (*Lancet-Clinic*) describes the case of a child, four months old, with pneumonia. The temperature had been above 105° for several days, with spasms, respiration 108, pulse 180 and weak. Aconite, counter-irritants, expectorants, stimulants, ammonia, and bromide had been given; and the child was at the extremity, when digitalis was given in a 15-drop dose repeated in thirty minutes. An hour later the respiration had fallen to 80; and 10 drops more digitalis was ordered to be given ever hour during the night. The child recovered, whisky was also given in doses of 25 drops down to 15, with each dose of digitalis.

TREATMENT OF IMPERFORATE HYMEN.—My ideas then, as to the proper method of procedure, are as follows:

1. Warn the husband of the danger of the operation.
2. Give the patient an anæsthetic.
3. Incise and tear the hymen freely.
4. Wash water in at once to take the place of and to wash out the blood and débris; wash until the water comes out clear. Several quarts will be required.
5. Pack the cavity full of iodoform gauze; use no compression on the abdomen.
6. Stitch the internal and external mucous surfaces of the hymen together.
7. Apply an antiseptic pad to the genitals.
8. Remove the gauze in forty-eight hours, wash out cavity, reapply gauze.
9. Keep the patient in the recumbent posture for two weeks, and in bed or on a sofa for a week or ten days longer.
10. If symptoms pointing to ruptured or leaky tube with accompanying peritonitis set in, open the abdomen, remove the cause of peritonitis if possible, wash out the peritoneal cavity and drain. To be successful this must be done early.

—Ross, *Jour. of Gynec.*

The differential diagnosis of venereal ulcers may be tabulated as follows:

URETHRAL ULCERS.	GONORRHOEA.
Incubation usually from ten to twenty days.	Incubation from one to ten days.
The ulcer is usually situated in the meatus, but frequently found as far as three inches back.	The entire urethral tract involved from the meatus to the deep portion of the urethra.
Ulcers can be seen by endoscopic examination.	There is never ulceration with gonorrhoea.
Peri-urethral induration can be felt around the site of the chancre.	There is never induration with gonorrhoea.
Usually one lip of meatus involved, and that everted.	Both lips inflamed and pouting.
There is always peri-urethral induration with chancre, but not always with chancroid.	There is swelling, but no induration.
Discharge slight, serous, or sero-sanguinolent.	Discharge abundant and muco-purulent.
Slight pain on micturition, and that only at the orifice. (There is often severe pain with chancroid.)	Pain severe, and felt along the entire tract.
Chordee usually absent, but is sometimes present.	Nearly always present.
Uninfluenced by local treatment unless the ulcer is simple.	Local treatment always beneficial.

—*American Lancet.*

PYOKTANIN IN TONSILLITIS.—For several years past I have been subject to severe attacks of tonsillitis

and have tried every remedy that I have seen recommended for its relief. The attacks would always last five or six days, no matter what I used.

A few weeks ago I was taken with as severe an attack of tonsillitis as I have ever had. I started with the usual treatment, but at the end of twenty-four hours my tonsils were swollen to such an extent that they met in the median line; breathing was difficult and painful, and swallowing almost impossible.

Thinking of a solution of pyoktanin (gr. ij to 3j) with which I had been injecting an epithelioma for one of my patients, I decided to try that for tonsillitis.

Taking a hypodermic syringe with a long needle, I injected half a drachm of the solution into each tonsil. It was not very painful. In an hour's time I felt a little better, and noticed the swelling was subsiding. Ten hours later I was much better, but as the tonsils were still somewhat swollen I injected them again, using half the amount of solution that I did at first.

I have had no cases of tonsillitis since, but I shall certainly use it in the first case that I have, as I have found more and quicker relief from it than from anything that I have yet tried.—Gates, *Med. Age.*

AMYOTROPHIC LATERAL SCLEROSIS.—The disease is to be differentiated from:

1. Progressive muscular atrophy.
2. Myelitis of the anterior horn.
3. Ordinary myelitis.
4. Postero-lateral sclerosis.

Progressive muscular atrophy begins with a fibrillary atrophy of the muscles, the paralysis is in proportion to this fibrillary atrophy, and there is no contracture or exaggerated reflexes whatsoever, whilst in amyotrophic lateral sclerosis the paralysis is usually a primary symptom, and the atrophy succeeds and is in the body of the muscle, or muscles, and is not fibrillary, and there supervene contracture and exaggerated reflexes.

Myelitis of the anterior horn in the child should never be confounded with amyotrophic lateral sclerosis, for the former is always sudden in onset, is monoplegic in its distribution, and affects only a certain muscular group, or groups, within that one limb, whilst the paralysis is a flaccid one, and there are no contractures or exaggerated reflexes. This same myelitis of the anterior horn in the adult usually begins with motor paralysis of one or more limbs of the whole body, reaching its acme in a few days, muscular atrophy succeeding within a fortnight, and the paralysis remains a flaccid one, contractures and exaggerated reflexes very seldom supervening.

An ordinary myelitis in its earlier stage might be confounded with amyotrophic lateral sclerosis, but the progress of the former affection should render a mistake impossible, as ordinary myelitis has pronounced sensory, rectal, and vesical symptoms, which are never present in amyotrophic lateral sclerosis.

Postero-lateral sclerosis, that is, that form of combined myelitis in which the posterior and lateral columns are simultaneously affected, would have superadded to the lateral sclerosis the symptoms of implication of the posterior column, *i. e.*, certain stabbing and lightning-like pains, severe, sudden, seldom confined to one locality long, together with impairment of one or more of the sensations of tact, muscular sense, pain or temperature, ataxia, and some vesical and rectal weakness.

—Gray, *Review of Insanity, Etc.*

RESORCIN.—As a remedy in septicemia, I regard it as being without an equal in the list of therapeutic agents for controlling the febrile stage and septic condition. I know of no better way I could explain the cause of my belief in this than to cite to you my experience in an epidemic of septicemia. During the spring of 1884, while resident physician of the Maternity Hospital in Baltimore, puerperal septicemia developed. The two first cases were attended according to the usual line of treatment in that disease; intra-uterine douche, iodoform suppositories, *quinine*, salicylate of soda, digitalis, with ice-cap and bags, followed by stimulants. Both cases died on the sixth or eighth day of the disease.

Encouraged by the effect of resorcin in a third case, I began its use in each subsequent case, with the ice-cap at times, and, of course, the intra-uterine douche and stimulants, being able to control the fever to a great extent. Never found it necessary to give over thirty grains in a single dose. The stomach rarely ever refused to retain liquid food and stimulants.

Out of eight cases of septicemia, four recovered and four died. Of those that died, two did so before the resorcin was used. In the third, resorcin was not begun until the sixth day of the disease, then, after other remedies had failed, the temperature responded to its use. Of the five cases treated with resorcin from the beginning, four recovered. It is true the latter cases seemed milder all the way through; but might not this have been due to the resorcin itself, by the readiness with which the fever responded to the remedy, the slight derangement of the stomach, allowing a freer use of sustaining remedies, and finally to its antiseptic properties?

—Chapman, *Med. Progress*.

GOLD IN TUBERCULAR PROCESSES.—In two cases of lupus there was in one complete recovery, in the other great improvement, by the internal administration of chloride of gold in doses of $\frac{1}{150}$ grain (0.0004 gramme) three times daily:

CASE I.—T. Tg., seventeen years old, affected on the whole face with lupus exulcerans, came under my treatment on March 4, 1890. His illness commenced six years ago. After one month of treatment by internal administration of chloride of gold he showed great improvement: the pricking pain disappeared entirely and the surface of the face became covered with cicatrices, except over the cartilaginous part of the nose and the lips. This case was observed by all the physicians in the dermatological ward of the Jewish Hospital.

CASE II.—This was a woman, twenty-four years of age, who two years ago noticed a small crust on the left nostril, which covered, in time, the whole cartilaginous part of the nose, producing destruction of the skin. After three weeks' treatment by gold she recovered completely. Formerly she was treated by scarifications and arsenic, with only temporary relief.

The beneficial effect, I am now convinced, is more apparent if auri chloridum is administered hypodermically by the Pravaz syringe. Hypodermically I employ a watery solution of chloride of gold (1.300), two drops twice daily. The beneficial action of gold by internal administration shows that this drug has a specific action on tubercular tissue. Administered in cases of pulmonary phthisis, it has also a very marked action, namely, the perspiration ceases, sometimes after the second day of its administration (this action is so marked that I do not know any other remedy which produces so rapid an effect); after five

days of its administration the temperature commences to decline and the cough diminishes considerably. Such an effect makes me suppose that the tubercular process in the lungs stops, just as the further development of the tubercles of lupus does, by producing absorption of the already-formed tubercles.

Observations on the action of gold in phthisis are now being made in the medical clinic of the Child Jesus Hospital, at Warsaw. It is worth noticing that chloride of gold in toxic doses gives rise to symptoms and pathological changes in the lungs very similar to those of phthisis, as the observations and experiments of Gozzi, T. C. Burnett, Orfila, and others prove.

—Drzewieck, in *Satellite*.

INJURIES TO THE KIDNEY.—Rest is all-important in the treatment of suspected or recognized injuries to the kidney. The patient should not be allowed to raise up, all sources of excitement should be sedulously avoided, the food should be liquid and unirritating, pain should be controlled with morphine. If the hæmaturia is moderate in quantity, fluid extract of ergot, or ergotin, should be administered every two or three hours, or gallic acid or turpentine. The bowels should be moved by enæma if constipation exists, but this ought not to be done more frequently than is absolutely necessary, as the passage of feces along the colon is liable to cause increased bleeding or to start it afresh, if it has ceased. Strapping the injured side with adhesive plaster tends, by its immobilizing and compressing action, to relieve pain and check hemorrhage. Vomiting and retching are liable to detach clots from thrombosed vessels and cause renewed or increased bleeding, hence should be controlled or prevented by attention to the diet, etc.; if the stomach is excessively irritable, rectal feeding should be employed. When there is cause to suspect that hemorrhage is going on, as from the presence of large quantities of blood in the urine or bladder, or swelling in the loin, indicating extravation around the kidney or within the kidney itself, or from the increasing collapse, ice bags or Leiter's coils with a stream of ice water running through them should be placed over the affected region. Still more urgent symptoms of hemorrhage demand an exploratory incision into the loin, and if the bleeding cannot be arrested by pressure or ligature, the kidney should be extirpated. A patient should not be allowed to bleed to death without a nephrotomy or nephrectomy being performed. When the bladder becomes filled with clots, cystitis and possibly pyelonephritis and pyæmia may result, unless a cystotomy is performed through the perineum, which will allow the decomposing clots to be removed and the bladder to be kept at rest. Small clots will pass from the bladder naturally, or may be removed through a large-eyed catheter or by the lithotomy aspirator. Sometimes a swelling occurs in the lumbar region, which is due to the escape of urine into the connective tissue around the kidney, caused by rupture of the pelvis or calices of the kidney, as rupture of the kidney tissue is not followed by the escape of urine. This is liable to set up suppurative inflammation and a perinephric abscess, which must be relieved by incision. A circumscribed fluctuating or elastic swelling in the loin may be a pyo- or hydro-nephrosis, which will require nephrotomy and possibly nephrectomy.

—Winslow, *Ma. Med. Jour.*

TREATMENT OF ATROPHIC RHINITIS.—I have found "listerine," an American preparation contain-

ing thyme, eucalyptus, and other essential oils, together with benzo-boracic acid, a most serviceable and pleasant disinfectant. It may be conveniently employed in Dobell's solution instead of the glycerine and carbolic acid in proportion of 1 or 2 of listerine to 10 of the lotion. As on account of the chronicity of the disease the employment of expensive drugs, or any drugs at all for the matter of that, is a matter of serious consideration to the people of limited means, it is often necessary to use the cheapest preparations. For this purpose common salt, 2 drachms in half a pint of water, or chlorate of potassium 1 drachm, or liq. potass. perm. 1 drachm in same amount of water will be found very useful.

My mode of treatment is first to soften and loosen the crusts as much as possible with a simple saline spray. For this purpose I usually employ bicarbonate of sodium, chloride of sodium borax, of each 30 grains, white sugar, 45 grains in half a pint of warm water. This is practically the formula introduced by Morell Mackenzie. If on rhinoscopic examination hardened masses still adhere to the mucous membrane they may be cautiously removed by means of the nasal forceps, or by the use of the anterior or posterior nasal syringe. The patient should be told to use the spray at least night and morning, sometimes three times a day may be necessary, and to come again in a week's time. If on the second interview the nostrils are found to be free from crusts and fairly sweet, the patient is to be directed to continue the same treatment. If crusts are again met with, they should be removed as on the first occasion. The simple saline spray may be continued for some weeks, and if there is no evidence of distinct improvement it will be well to make a change. I have found the addition of listerine to the alkaline spray useful in diminishing the fœtor from the nose and acting as a mild stimulant. If a more powerful disinfectant is required, Dobell's solution may be used, and the amount of carbolic acid increased if necessary, also weak solutions 2 to 5 grains of sulphate of zinc, alum, or nitrate of silver will, at times, be found useful. The permanganate of potassium formula or creolin 1 to 500 up to 1 to 100 is useful as a change. After thorough cleansing of the nostrils insufflation may be employed. For this purpose I have used iodoform, iodol, or boric acid. Recently aristol (the iodide of thymol) has been highly recommended. Many other combinations have been advised, but whatever is used it must be distinctly understood that it is not so much the particular solution employed, as the thoroughness with which the process of cleansing the nostrils is carried out which conduces to the cure. Again, it is very desirable to ring the changes on the solutions employed. After thoroughly spraying out the nasal cavities I have found smearing the interior with oil of eucalyptus and vaseline (a drachm to the ounce) serviceable, as it appears to prevent the mucous membrane becoming dry. The vaseline should be warmed and applied by means of a camel's-hair brush. Another plan is to spray out the nostrils with one of the liquid paraffins, e.g., paroleine.

In intractable cases Gottstein's tampon is very useful. To obtain the best effect the plug of cotton wool should be in contact with the whole of the interior of the nostril. The plug acts as a stimulant to the mucous membrane and so keeps up a certain amount of watery discharge, thereby preventing the formation of crusts.

—De Haviland Hall, in *The Med. Press*.

Medical News and Miscellany.

FIFTY-THREE hospital admissions were announced for June 17.

THE Illinois legislature finally legislated Dr. Rauch out of his office.

DR. W. W. WHITEHEAD, of Mt. Holly, N. J., married Miss Eugenia Pierce, June 17.

DR. JAS. HARVEY ROBINSON has been elected Lecturer on European History at the University of Pennsylvania.

L. H. DAVIS, in the *Memphis Medical Monthly* advocates calomel as curative in tuberculosis, carcinoma and all forms of disease!

SMALL-POX has appeared in three Nebraska towns. As long as the cattle are all right, however, the Nebraskan preserves his equanimity.

CHICAGO is being stirred up by stories about the spirit of Dr. Cronin haunting the Carlson cottage. For several nights the house has been surrounded by an excited crowd.

A NUMBER of sunstrokes occurred in Philadelphia, June 17. Next day the city was pervaded by an odor of naphthaline, from the overcoats and winter clothing resuscitated by the cold snap.

ONE of the results of the ninth annual meeting of the Arkansas Association of Pharmacists, held at Hot Springs, May 20, was to declare: "The chemical formula for Hot Springs is $KI + HgCl_2$."

ONE scream of fear from a mother may resound through the whole life of her daughter; for no rational discourse can extinguish the mother's scream. You may make any full stop, colon, semi-colon, or comma of life before your children, but not a note of exclamation!—*Jean Paul Richter*.

THE officers of the Children's Country Week Association is at 1414 Arch street. Contributions may be sent to the Friends' Book Association, Fifteenth and Race streets; A. M. Spangler, 529 Commerce street; *Evening Bulletin*; *Germantown Independent*, or to the office of the Association.

A CURIOUS phenomenon is reported from Jewett City, Conn. "George Rood was recently struck by a thunderbolt and badly burned. His whole body is so charged with electricity that when he puts his hands together they stick, and only by violent rubbing can they be separated. If his feet touch it is the same. The severe burns are beginning to heal, but he can not stand up." He ought to let himself out as a storage battery.

A SERIOUS complaint against the condition of one of the public bath-houses in Philadelphia was made to the Board of Health. While the inference contained in that complaint—that a boy contracted skin disease through bathing in the pool—is not to be accepted without other proof than coincidences of time, the allegation that the water is stagnant and becomes dirty is a matter of fact into which the Board of Health has properly ordered an inquiry. It is easy to understand how a public bath-house, unless conducted with scrupulous care and cleanliness, might become a real sanitary evil, instead of a promoter of public health, and the closest supervision should be maintained over all of the pools.—*Ledger*.

TWENTY-NINE CHILDREN AND ALL LIVING.—Robert Packard and wife, living on a farm near New Hartford, Iowa, are the parents of twenty-nine living children. The eldest, a man forty-nine years old, is married, and lives on a farm adjoining the parental homestead. The other twenty-eight are single and living at home. Only one of the family is a girl. The first birth was a single one, but the next five produced triplets. The others were sets of twins. The youngest child is sixteen years old.

CANINE MEMBERS OF THE AMBULANCE CORPS.—The German authorities have now trained shepherd dogs to find the wounded on the battle-fields. The regiment of lancers stationed at Huelben possesses a dozen of these shaggy-coated members of the ambulance corps, which have been taught to find any soldier hidden in the woods and fields in the neighborhood of the garrison. On finding a soldier they run back and bark till the ambulance wagon arrives.

No progressive physician will subscribe to a monthly medical journal when he can have a weekly medical journal at about the same price.

The weekly journal supplies the progressive doctor with pretty nearly four times as much reading matter, and too, by instalments. A copy of the journal containing an abundance of fresh matter, reaches him at the end of each week, and by the time this is thoroughly digested another issue comes along, and he is thus regularly furnished with the very latest and best thought of the profession weekly.

—*Weekly Medical Review.*

It is a mistake to throw the kitchen refuse fresh upon the fire, for then the combustion is imperfect, and very offensive odors are given off. It should always be placed in a receptacle specially arranged for the purpose at the stove. The ordinary heat of the stove will dry out all moisture and leave charcoal, which may be burned like other fuel. There are several patented devices already in the market for this purpose. One of them is obtained only in the construction of the stove, and consists of a receptacle in the side of the stove in which the garbage is put, completely desiccated, and then dumped into the fire. Another consists of a small pail arranged for the purpose, it can be applied to any stove, and is said to answer the needs well.

DUBLIN JOKE.—The ordinary meeting of the "Mutual Medical Titillation Society" was held last evening. T. R. Umpet Bloer in the Chair. The following papers were read: Dr. Colley-Wabbles on "The Cure of Chronic Diarrhœa by Ligature of the Transverse Colon, Staffordshire Knot," (Why not?—Ed.). Dr. Strait Vest: "Case of Homicidal Mania in a Child Five Days Old," and on "The Painless Removal of a Pair of Trousers from a Dangerous Lunatic, Who had Attempted Suicide with Same." An interesting discussion ensued. Dr. Bide-A-Wee: "Fatal Result from the Expectant Treatment of Post-Partum Hemorrhage." The following papers were promised for next meeting, to be read by Secretary, on "A New Patent Foramen-Ovale," and "The Treatment of Spina Bifida by the Taxis and Violent Percussion," by Von Homboog; and on "The Value of Massage in the Treatment of Ingrowing Toenail," by Professor Footsore Limpi. Von Schuckhardt on "A Case of Exophthalmic Goitre in a Kitten Benefited by Traction on Caudal Extremity." Card Specimen: "Musket Ball, weighing four ounces, Removed from Left Lachrymal Duct by Magnet."

A DEVOUT believer in homœopathy says that half the people in Brooklyn are treated by practitioners of that school. A casual examination of Polk's Directory shows that the ratio of regulars to homœopaths is about five to one. Either our informant is mistaken, or else the homœos of Brooklyn are kept pretty busy, and the regulars are starving. From the reports received from medical friends in Brooklyn, and from the prosperous appearance of that city's one medical journal, we do not believe the regulars are suffering much.

WEEKLY Report of Interments in Philadelphia, from June 13 to June 20, 1891:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess.....	1		Fever, typhoid.....	4	3
Anæmia.....	1	1	Gangrene.....	1	
Aneurism of the aorta.....	1		Hernia.....	1	
Alcoholism.....	2		Inanition.....		12
Apoplexy.....	6		Influenza.....	2	
Asthma.....	1		Inflammation brain.....	6	13
Bright's disease.....	15		" " bronchi.....	3	2
Burns and scalds.....	1		" " kidneys.....	3	2
Cancer.....	6	5	" " liver.....	1	2
Casualties.....	5	5	" " lungs.....	12	10
Congestion of the brain.....	1	2	" " pericardium.....	1	
" " lungs.....	1	2	" " peritoneum.....	4	
" " liver.....	1		" " s. & bowels.....	2	6
Child birth.....	2		" " tonsils.....		1
Cholera infantum.....		67	Jaundice.....	1	
Cirrhosis of the liver.....			Marasmus.....		22
Consumption of the lungs.....	37	7	Measles.....		1
" " bowels.....	1		Neuralgia, heart.....	1	
" " throat.....	1		Obstruction of the bowels.....		1
Collapse of lungs.....			" " Old age.....	13	
Convulsions.....	1	16	Paralysis.....	7	1
Croup.....	1	7	Poisoning.....	3	
Cyanosis.....		1	Rheumatism.....	1	2
Debility.....	2	4	Scrofula.....		1
Diabetes.....	3		Softening of the brain.....	2	
Diarrhœa.....	1	2	Suicide.....	1	
Diphtheria.....		5	Sunstroke.....		5
Disease of the heart.....	19	4	Syphilis.....		2
Drowned.....		8	Teething.....		4
Dropsy of the brain.....		3	Tetanus.....	1	
" " chest.....	1		Tumor.....	2	2
Effusion of the brain.....		1	Ulceration of the stomach.....	1	
Ephysema.....	2		" " " leg.....	1	
Enlargement of the heart.....	2		Unknown.....	1	
Embolism, cerebral.....	1		Uremia.....	2	1
" " cardiac.....	1		Whooping cough.....		4
Epilepsy.....	1				
Exophthalmic goitre.....	1		Total.....	205	238
Fever, scarlet.....	1	9			

THE UNIVERSITY PRESS'S DEFENSE.—Arthur L. Hummel recently began suit against the University of Pennsylvania *Press* to recover an amount alleged to be due him for salary as manager, for purchase money due in the purchase by the defendants of certain journals from him, and for money alleged to belong to him from certain private accounts collected by the defendants. J. H. Shinn, the manager of the *University Press*, has filed his affidavit of defense. He says that the plaintiff has been paid in full for the salary due him, and that the amount collected by the defendants and alleged to belong to the plaintiff was an indebtedness of a third party for work done, to which the *University Press* was clearly entitled, having been transferred to the *Press* by the plaintiff by the terms of the contract of sale of the franchises by the plaintiff to the *Press*. Mr. Shinn also says that the plaintiff has by his conduct caused damage to the *University Press* in an amount far exceeding the sum claimed by him. The plaintiff, he says, did not carry out the stipulation in his contract; but the defendant believes did, with intent to take away its business and to obtain the same for his own use and profit, so conduct the business of the defendant as to greatly injure the same, and so negligently conducted the publication of the various magazines of the defendants as to cause certain owners of the same to withdraw the publication of the magazines, which

were "The Journal of Comparative Medicine and Veterinary Archives" and "The Annals of Gynecology and Pædiatry." For these alleged injuries the defendant claims \$5,000 damages. Mr. Shinn also says that "Dr. Joseph F. Edwards, with whom defendant had a contract assigned to it by the plaintiff for the publication of a magazine called 'The Annals of Hygiene,' canceled this contract, owing to the plaintiff's neglect as manager." For this alleged injury \$1,200 damages are claimed, making a total offset of \$6,200 damages.

AT THE POLYCLINIC.—The Philadelphia Polyclinic and College for Graduates in Medicine continues to reach out for additional facilities in the way of study and research for its large class of students. It has just elected five new lecturers. Dr. H. R. Wharton, who is Surgeon to the Children's Hospital and to the Presbyterian Hospital, has been elected Lecturer on Surgical Diseases of Children, a part of his course being Tracheotomy and Intubation.

Dr. C. P. Noble, surgeon in charge of the Kensington Hospital for Women, has been elected Lecturer on Gynecology.

Dr. James K. Young, surgeon to the Orthopædic Department of the University Hospital, has been elected Lecturer on Orthopædic Surgery.

Dr. G. Betton Massey, one of the physicians to the Howard Hospital, has been elected Lecturer on Gynecological Electro-Therapeutics, and Dr. Lewis H. Adler Lecturer on Diseases of the Rectum.

Through the recent election of Prof. J. M. Baldy, the valuable special field of the Gynæcean Hospital has been made available to physician pupils who attend "The Polyclinic."

The addition of the above lecturers as an auxiliary to the twenty members of the Faculty will make the entire course of instruction cover one hundred and fifty hours every week, from which may be selected the portion desired by each physician pupil.

A leading member of the Faculty said yesterday that "it is unfortunate that the constant demand made by physicians for laboratory work in pathology, bacteriology, therapeutics, and in microscopy of normal tissues, cannot be met for want of funds. It is, however, hoped that, now that the Governor has approved the Legislative appropriation bill for this institution for \$7,500, generous citizens will cordially and voluntarily contribute the money essential for the building fund and for the success of the only institution of its kind in this State. Checks and donations of any amount may be sent to Mr. J. D. Reinboth, Financial Agent, at the Polyclinic Hospital, Lombard street, west of Eighteenth street."

Army, Navy & Marine Hospital Service.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from May 31, to June 15, 1891.

Captain Edward C. Carter, Assistant-Surgeon, will proceed without delay to Fort Canby, Washington, and report to the commanding officer for temporary duty, relieving Major John D. Hall, Surgeon, who will proceed to Fort Sherman for duty as Post-Surgeon. S. O. 74, Par. 1, Department of the Columbia, May 22, 1891.

By direction of the Secretary of War, Captain Jefferson R. Kean, Assistant-Surgeon, is assigned to temporary duty at Fort Myer, Va., until the return of Major Robert H. White, Surgeon, to duty at that post. Par. 8, S. O. 122, A. G. O., May 28, 1891.

Leave of absence for twenty days is granted Major William E. Waters, Surgeon, U. S. Army. Par. 6, S. O. 122, A. G. O., May 28, 1891.

By direction of the Secretary of War, Captain Van R. Hoff, Assistant-Surgeon, is relieved from duty as a member of the board of medical officers to which he was assigned by Par. 6, S. O. 78, April 7, 1891, from this office, and will, upon the completion of the duties assigned him by Par. 6, S. O. 110, May 14, 1891, from this office, return to his proper station, Fort Riley, Kansas. Par. 11, S. O. 126, A. G. O., June 3, 1891.

By direction of the Secretary of War, the leave of absence on surgeon's certificate of disability granted Major Samuel M. Horton, Surgeon, in S. O. 49, March 4, 1891, from this office, is extended three months on surgeon's certificate of disability. Par. 6, S. O. 129, A. G. O., June 4, 1891.

By direction of the Secretary of War, Par. 1, S. O. 74, May 22, 1891, Department of the Columbia, transferring Major John D. Hall, Surgeon, from Fort Canby, Washington, to Fort Sherman, Idaho, is confirmed. Par. 4, S. O. 126, A. G. O., June 3, 1891.

With approval of the Secretary of War, leave of absence for three months, take effect on or about June 15, 1891, is granted Major David L. Huntington, Surgeon. Par. 2, S. O. 124, A. G. O., June 1, 1891.

By direction of the Secretary of War, the extension of leave of absence on account of sickness granted Captain Henry P. Birmingham, Assistant-Surgeon, in S. O. 108, May 12, 1891, from this office, is further extended to June 21, 1891, on surgeon's certificate of disability. Par. 6, S. O. 125, A. G. O., June 2, 1891.

Leave of absence for one month is granted Captain Jefferson R. Kean, Assistant-Surgeon, to take effect after the return of Major Robert H. White, Surgeon, to duty at Fort Myer, Virginia. Par. 1, S. O. 123, A. G. O., May 29, 1891.

The leave of absence for seven days granted Major Philip F. Harvey, Surgeon, by order No. 96, C. S., Fort Keogh, Montana, is extended fourteen days. Par. 2, S. O. 98, Departments of Dakota, June 5, 1891.

With the approval of the acting Secretary of War, leave of absence for fifteen days, to take effect on being relieved from duty at Fort McHenry, Maryland, is granted Major Charles B. Byrne, Surgeon. Par. 14, S. O. 130, A. G. O., June 8, 1891.

Changes in the Medical Corps of the U. S. Navy for the three weeks ending June 20, 1891.

ALFRED, A. R., Assistant-Surgeon. From Naval Hospital, Norfolk, and to the "Fern."

STOUGHTON, JAMES, Assistant-Surgeon. To duty Navy Hospital Norfolk, Va.

YOUNG, L. L. S., Assistant-Surgeon. To duty at Naval Station Port Royal, S. C.

HOEHLING, A. A., Medical Inspector. Ordered as member Naval Medical Examining Board.

STREETS, T. H., Surgeon. Ordered to duty on the U. S. S. "Bennington."

WAILES, P. S., Medical Director. Ordered as delegate to represent Medical Corps of Navy to the International Congress of Hygiene and Demography at London, Eng.

GRAVATT, C. U., Surgeon. Detached from Naval Hospital, Yokohama, Japan, and ordered home.

ROGERS, FRANKLIN, Surgeon. Detached from special duty Norfolk, Va., and to Yokohama Hospital.

RUTH, M. L., Surgeon. Detached from U. S. S. "Newark," and granted leave of absence for six months, with permission to leave the United States.

BRIGHT, GEO. A., Surgeon. Ordered to the U. S. S. "Newark."

PIGOTT, M. R., Assistant-Surgeon. Ordered to the U. S. Receiving Ship "Independence."

WELLS, HOWARD, Surgeon. Detached from Naval Hospital, Chelsea, and wait orders.

STEELE, J. M., Passed Assistant-Surgeon. Ordered to Naval Hospital, Chelsea, Mass.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service for the two weeks ended June 6, 1891.

FESSENDEN, C. S. D., Surgeon. Granted leave of absence for thirty days. June 6, 1891.

IRWIN, FAIRFAX, Surgeon. Leave of absence extended seven days. June 4, 1891.

MEAD, F. W., Surgeon. When relieved at Chicago, Ill., to proceed to Washington, D.C., and report to the Supervising Surgeon-General for duty. May 29, 1891.

MAGRUDER, G. M., Passed Assistant-Surgeon. Granted leave of absence for five days. June 1, 1891.

YOUNG, G. B., Assistant-Surgeon. Leave of absence extended fifteen days on account of sickness. June 6, 1891.

